

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1881.—Vol. XLI.

LONDON, SATURDAY, SEPTEMBER 9, 1871.

(WITH SUPPLEMENT) {PRICE FIVEPENCE.
PER ANNUM, BY POST, £1 4s

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(ESTABLISHED 1842.)

HOLDERS of mining shares DIFFICULT OF SALE in the open market may find purchasers for the same through Mr. CROFTS' agency. Also parties requiring advice how to act in the disposal or abandonment of doubtful mining stocks may profitably avail of Mr. CROFTS' long experience on the market in all cases of doubt or difficulty, legal or otherwise.

CATTLE AN DINAS TIN MINE (LIMITED).
This mine (St. Columb, Cornwall) is now in full work, and making regular profits. A minimum dividend of 10 per cent. is guaranteed for three years, from January, 1871, but the profits are expected to give a much higher return. The shares are limited to £2 each, and FULLY PAID, so there is no liability whatever. Mr. CROFTS strongly recommends these shares, in which he has SPECIAL BUSINESS.

Every description of shares bought and sold at NET prices.
Bankers: Metropolitan Bank.

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44, THREADNEEDLE STREET, LONDON, E.C., has FOR SALE the following SHARES, free of commission:—

20 Asheton.	20 Gt. No. Laxey, fully paid, 18s. 9d.	50 Rhydallog, fully pd., £2.
60 Birdseye Creek, £4, fully paid.	20 Gunlake (Chitlers) 32s.	20 So. Condurow, £2 1/2
60 Bog, £2 1/2s.	25 Hingston.	50 So. Roman Gravel.
20 Cashwell.	20 Marke Valley, £5 13s	30 Sweetland Crk., £4 13
20 Caegynog, 31s.	100 Nanglees.	30 South Aurora.
10 Crover and Wheal Abraham.	15 North Croft, 38s. 9d	100 Taquaril, 7s. 9d.
25 Don Pedro.	50 Old Batholes, fully paid, 28s. 9d.	25 United Mexican, £3 1/2
50 Drake Walls.	25 Pylaminon, 38s.	20 Utah, £16 18s. 9d.
10 East Van, £12 1/2.	75 Pestarena.	5 Van, £27 1/2.
25 East Llangynog, £3.	20 Perkins Beach, 32s.	30 West Maria, 19s. 6d.
15 East Caradon, £3 1/2.	30 Port Phillip.	100 West Tankerville.
25 East Grenville, £3 1/2.	50 Pennerley, £3 19s. 6d.	100 West Pant-y-go.
5 Eberhardt.	15 Pacific.	20 Wheal Agar, 32s. 3d.
10 Florida, £5.	60 Parys Mountain, £3 1/2	5 West Chiverton.
15 Great Laxey.	10 Roman Gravel.	10 Wheal Uyn.
20 Great Vor.		

W. H. B. transacts business in every description of shares at the best market prices, and free of commission.
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Bankers: Bank of England.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER,
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Every description of shares BOUGHT and SOLD at the best market prices.

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MR. THOMAS SPARGO, MINING ENGINEER, STOCK AND SHAREDEALER,
224 and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

MR. THOMAS THOMPSON, JUN., STOCK AND SHAREDEALER AND MINE AGENT, 5, WHITEHALL, LONDON, S.W.

Some valuable hints as to the purchase of mining shares will be found in Mr. THOMPSON'S "Investment Circular" for September; now ready; post free, price 6d.

MR. JOHN CARTER, MINE AND SHARE DEALER,
CAMBORNE, CORNWALL (Son of the late Thos. Carter), transacts Business in every description of shares at close market prices of the day. References exchanged when required.

Twenty-six Years' Experience.
MR. F. W. MANSELL, STOCK AND SHAREDEALER,
1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.
Daily List of closing prices in British and Foreign mining every evening (free). References exchanged. Bankers: London Joint-Stock Bank.

MESSRS. WM. MARLBOROUGH AND CO.,
29, BISHOPSGATE STREET WITHIN, LONDON, E.C. (Established 17 years), have FOR SALE the FOLLOWING SHARES at prices annexed:—

40 Asheton, 20s. 6d.	5 Great Laxey, £16 1/2.	50 Powell United.
50 Birdseye Creek, £4 1/2s.	25 Gt. No. Laxey, 18s. 9d	5 Providence, £25 1/2.
50 Bog, £2 1/2s. 3d.	25 Gwydyr Park, £2 1/2.	5 Roman Grav., £18 1/2.
50 Caegynog, 31s.	20 Hingston, £2 13s 9d	50 Rhydallog, £2.
1 Cook's Kitchen, £27 1/2.	2 Herodfoot, £44.	10 So. Condurow, £2 1/2.
40 Cathedral.	20 Lovell Consols, 2s.	15 South Aurora, £3 1/2.
20 Caru Brea, £146.	40 Llanarmon, 27s. 6d.	1 South Croft, £22 1/2.
50 Drake Walls, 16s. 9d.	20 Marke Valley, £2 1/2.	50 So. Roman Grav., 25s.
50 Don Pedro, £2 1/2s. pm.	20 North Pool, £3.	50 So. Darren, 21s. 6d.
1 Devon Consols, £110.	30 North Croft, 40s.	2 Tankerville, £16 18s 9
50 Eberhardt, £3 1/2.	50 No. Trokerby, 2s. 3d	2 Tincroft, £47 1/2.
20 Ellice, 1s. 3d. prem.	20 New Lovell, £2 1/2.	50 Taquaril, 7s.
50 East Rhydallog.	1 New Hingston.	10 Utah, £17 1/2.
10 East Van, £12 1/2s. 3d.	1 New Rosewarne, £55.	10 Wheal Grenville, £7.
10 East Llangynog, £2s.	3 North Boskar, £17 1/2	50 Wheal Crebor, 26s. 3d.
50 East Caradon, £3 1/2.	50 Pinto, £1 pm.	40 W. Drake Walls, 4s. 6d
25 Gt. Royalton, £11. 9d.	75 Princes of Wales, 17s 6	5 W. Chiverton, £16 1/2.
50 Gt. Batholes, £11. 9d.	50 Parys Mount, £3 13s	50 Wheal Lucy, £16 1/2.
50 Gt. Retallack.	40 Pennerley, £3 18s. 9d.	50 Wheal Agar, 31s. 6d.
50 East Lovell, 22s.		

WHAT PAYS BEST?—A PRACTICAL TREATISE UPON INVESTMENTS IN BRITISH AND FOREIGN MINES.
W. MARLBOROUGH AND CO.,
29, Bishopsgate-street Within, London.
Post free Sixpence.

MR. HENRY MANSELL, STOCK AND SHAREDEALER,
34, GREAT WINCHESTER STREET, LONDON, E.C.

AN OFFER WANTED for the following shares (or any part of same):—

50 Bog, £2 10s., fully pd.	60 New Beldon.	50 W. Tankerville, £3 16s 3
20 East Caradon.	40 Perkins Beach, £11 13	100 Terras Tin.
20 Sweetland Crk., £4 13	50 Aberdaunt.	2 Cook's Kitchen, £26 1/2.
60 East Rhydallog.	50 Ellice, 18s. 9d.	10 Eberhardt, £36 1/2.
20 Pennerley, £4 1s. 3d.	20 Great Vor, £2 1/2.	50 Taquaril, 8s. 3d.
10 Utah, £3 1/2s. pm.	30 Russian Copper, £3	100 East Terras, 20s.
10 East Llangynog.	fully paid.	60 So. Herodfoot, offer wanted.
15 North Croft.	20 So. Roman Gravel.	5 Roman Grav., £18 1/2.
20 Great Royalton.	40 Wheal Crebor.	5 Llanarmon, £2 5s.
20 Wheal Uyn, £2s. 6d	40 Drake Walls, 11s. 3d.	50 Wheal Lucy, £3 1/2.
50 Gwydyr Park, 15s.	10 Tankerville, £16 1/2.	
10 Wheal Grenville, £7 1/2.	60 Great Lovell, offer w.	

MR. HENRY MANSELL strongly recommends the immediate purchase of these shares for a great advance in price. A detailed report on application; and specimens of the ore just brought from the mine can be seen at the above address.

GREAT VOR, SOUTH CONDURROW, and WEST CARADON shares are also safe to buy at present quotations.

References exchanged.
Daily List of Latest Prices sent free on application.

MR. GEORGE BUDGE, STOCK AND SHAREDEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 31 years), is a SPECIALIST in net prices of:—

250 St. Agnes Consols, 2 Miners,	150 West Caradon,	145 Gwydyr Park,	2 Devon Terras,
50 New Rosewarne,	100 Wheal Crebor,	60 Perkins Beach,	75 East Terras,
50 Wheal Lucy,	45 Caegynog,	70 Prince of Wales,	15 Rose and Chiverton,
40 New Beldon,	3 Cook's Kitchen,	40 Pennerley,	20 East Van,
100 Great Lovell,	120 East Chiverton,	35 West Jewell,	20 Wheal Grenville,
80 Great Caradon,	35 Polgreen,	10 East Caradon,	200 Wheal Arthur,
5 East Darren,	30 Broadford,	4 Trumper Consols,	3 Spear Moor,
25 Trevanick,	40 West Basset,	50 Frank Mills,	250 Anglo-Brazilian,
200 Ellice,	10 Utah,	150 General Brazilian,	
50 Pinto,	30 Sao Vicente.		

SPECIAL BUSINESS in St. John del Rey, Van, East Darren, Miners, New Pembroke, West Chiverton, Bwiche Consols, and Sierra Buttes.

WEST CARADON MINE.—Particulars of the recent discoveries at this mine will be found in PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST," No. 651, of Friday, Sept. 8, 1871. Price 6d. each, forwarded on application.

MR. PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON, E.C.
Bankers: The Alliance Bank, and Union Bank of London.

TANKERVILLE—ROMAN GRAVELS.—PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST," No. 651, of Friday, Sept. 8, contains the latest particulars of the above, and also of the LEADING COPPER and TIN MINES of CORNWALL.

WEEKLY MINING CIRCULAR, EVERY FRIDAY.—LONDON DAILY RECORD, STOCK & SHARE LIST, Every Evening. Published by P. WATSON, Stock and Sharedealer, 79, Old Broad-street, E.C.

M. W. H. OUEL, L.
No. 42, CORNHILL, LONDON, E.C.
Daily price-list on application.

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MESSRS. W. DUNN AND CO., STOCK AND SHARE-DEALERS, 3 AND 4, GREAT WINCHESTER STREET BUILDINGS, LONDON, E.C.

Bankers: National Provincial Bank of England.

FOR SALE, at prices affixed:—

15 Broadford, £2 7s. 6d.	30 East Seton, £1 7s. 6d.	2 West Frances, £65.
25 Bog, £2 15s.	20 North Croft, £2 2s 6	10 Wheal Grenville, £7.
50 Caegynog, £1 15s.	4 No. Roskar, £17 1/2.	20 Wheal Lucy, £3 8s 9d
2 Caru Brea, £145.	10 Pennerley, £4 1s. 3d.	5 Wheal Kitty (St. Agnes), £9 15s.
10 Eberhardt, £26 5s.	15 S. Condurow, £3 10s.	20 So. Aurora, £3 15s.
5 East Basset, £12.	35 Terras Tin.	10 Utah, £16 12s. 6d.
50 East Lovell, £12 5s.	60 Van Consols, £1 7s 6d	

Messrs. W. DUNN and Co. are prepared to recommend to their correspondents the shares of a valuable tin mine situated in the richest district of Cornwall. The shares in question Messrs. W. D. and Co. have been able to secure in good season, and are willing to supply a limited number to their usual correspondents at a price that will (they are confident) prove most advantageous to the purchasers, and, at the same time, moderately but sufficiently remunerate themselves. Full particulars on application.
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FRANK LIMMER, Secretary.

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Treleigh Wood, West Caradon, Wheal Lucy, New Rosewarne, and Wheal Crebor Mines specially recommended. Wheal Grenville shares, in all probability, will be worth £20 each; East Grenville, £10; Treleigh Woods, £150; West Caradon, £7; Wheal Lucy, £20; New Rosewarne, £150; and Wheal Crebor, £5.
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MR. W. TREGELLAS, 122, BISHOPSGATE STREET WITHIN, LONDON, E.C., is PREPARED to DEAL in all descriptions of STOCKS and SHARES at close market prices.

W. T. strongly recommends for investment the shares of the ECLIPSE GOLD MINING COMPANY, which will soon be in a condition to make large returns of gold and silver.
W. T. also recommends the purchase of shares at once in NEW WHEAL CHARLOTTE TIN AND COPPER MINE COMPANY (Limited), St. Agnes, Cornwall, full particulars of which can be had on application.
Bankers: Imperial Bank.

MESSRS. J. HUME AND CO., 74, OLD BROAD STREET, LONDON, E.C.

FOR SALE:—

10 Eberhardt, £27 1/2.	50 Taquaril, 7s. 6d.	10 So. Condurow, £9 1/2.
10 Utah, £17 1/2.	10 East Lovell, £12 1/2.	10 Great Vor, £2 1/2.
20 South Aurora, £4.	10 New Lovell, £2 1/2.	10 Tankerville, £17 1/2.
20 Richmond Cons., £2	1 Carn Brea, £145.	20 W. Tankerville, £2 1/2.
prem.	10 East Van, £13 1/2.	5 W. Chiverton, £16 1/2.
	20 Van Consols, 36s.	

Shares bought and sold at closest prices.
Telegrams promptly attended to.

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All marketable stocks dealt in for cash or account.
We strongly advise the prompt purchase of shares in the EAST LLANGYNOG LEAD MINING COMPANY (Limited). This mine will shortly pay a dividend. Apply at once for shares as above.

Our clients will remember that we have from the first advised the purchase of the TERRAS TIN shares, believing it to be, from our own inspection, one of the best tin-paying properties in the West of England. We have now only a limited number of shares for sale. Apply at once.
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THE CITY EXCHANGE MINING AND INVESTMENT OFFICES, 32, NEW BROAD STREET, LONDON, E.C.
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Business transacted in all marketable securities for cash or account.

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HITCHENS and Co., from personal inspection, can name three mines on which a great rise must take place on their merits.

H. and Co. can also name a commercial undertaking that will pay from 15 to 20 per cent., the same being a safe investment.

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MESSRS. A. W. THOMAS AND CO., 10, COLEMAN STREET, E.C., MINING AGENTS, AND STOCK AND SHAREDEALERS.
Monthly Circular for September now ready; post free, 6d.

MESSRS. G. LAVINGTON AND A. PENNINGTON,
44, THREADNEEDLE STREET, E.C., STOCK AND SHAREDEALERS, have SPECIAL BUSINESS in the undermentioned:—

Birdseye.	Kitty (St. Agnes).	Pacific Gold.
Bog.	Mary Ann.	Sweetland Creek.
Eberhardt.	Powell United.	South Aurora.
Ellice.	Pennerley.	Utah.
Great Wheal Vor.	Perkins Beach.	West Esgrail Llc.

Parties wishing to purchase or sell in the foregoing are requested to make early application.

WANTED—100 Pacific.
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LAVINGTON AND PENNINGTON'S "MONTHLY RECORD OF INVESTMENTS," containing an exhaustive Review of the British and Foreign Stock and Share and Money Markets, &c., with an enumeration of safe investments, paying from 10 to 20 per cent. Price 6d. per copy, or 5s. annually. G. LAVINGTON and A. PENNINGTON, 44, Threadneedle-street, London, E.C.

MR. T. E. W. THOMAS, STOCK AND SHAREDEALER,
3, GREAT WINCHESTER STREET BUILDINGS, E.C.
Business operations in Mining Shares negotiated at close market rates. Daily Price-List on application.
Established 1857.

SOUTH CONDURROW.—
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1.—On June 11, one day before the meeting, I learned that the losses on the four months' working amounted to £234 7s. 8d.
2.—That by an unprecedented course the sum of £878 4s., realised on the sale of tin on the 14th June, a telegram as to which arrived on the 15th (the morning of the meeting), was at once disseminated, and made applicable to dividend.
3.—That the working costs being over £2000 per month, the margin of possible profits is not such as to encourage me in recommending the shares as an investment.
No shareholder in this mine should hesitate to enquire of the Secretary if the above comments can be verified.
JOHN R. PIKE.
Crown Chambers, Threadneedle-street, London.

MR. T. A. MUNDY, STOCK AND SHAREBROKER,
38, BISHOPSGATE STREET WITHIN, E.C.
Bankers: City Bank.

MR. C. A. POWELL, STOCK AND SHAREDEALER,
No. 1, PINNER'S COURT, OLD BROAD STREET, E.C.
References exchanged. Bankers: City Bank, Finch-lane.

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"Handbook for Investors," price 12s. 6d., post free.
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Messrs. CAMERON and Co. invite subscriptions for a limited number of fully-paid shares, at £2 each, in a sound MINING PROPERTY, which is certain to pay large dividends at an early date. Full particulars forwarded on application. Business transacted in American Gold and Silver Mines, also in Roman Gravel, Tankerville, Bog, Pennerley, and Perkins Beach.

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Capital, £50,000, in shares of £1 each.
In Ten Distinct Series of Investments of £5000 each.

The number of shares applied for in the No. 1 and No. 2 Series having been considerably in excess of the 10,000 shares to allot, the directors have decided upon issuing a Third Series forthwith.

The present issue will consist of No. 3 Series, for both Australian and New Zealand Investments, £5000.

Applications for these shares should be sent in forthwith.

For forms, &c., apply to—
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THE EAST BOTTLE HILL MINING COMPANY

(LIMITED).

Capital, £30,000, in 6000 shares of £5 each.

Incorporated under the Companies Acts, 1862 and 1867, by which the liability of shareholders is limited to the amount of their shares.

Deposit, £2 per share on application, and £1 on allotment, and the balance by calls as required.

DIRECTORS.

JAMES JOHNSON, Esq., Belmont House, Starbeck, Harrogate.
WILLIAM WARD, Esq., West Hill, Hesle, Hull.
GEORGE DAVES, Esq., Milton, near Barnsley.
JOHN PERROTT, Esq., 88, Abchurch Lane, London, E.C.
EDWARD NEWTON CARL, Esq., Plymouth Grove, Manchester.

BANKERS—THE ALLIANCE BANK (LIMITED), London, E.C.

SECRETARY—MR. EDWARD BREWIS.

OFFICES,—19, BISHOPSGATE STREET WITHIN, CITY, LONDON, E.C.

PROSPECTUS.

This company has been formed to purchase and work the mineral property known as the East Bottle Hill Mine, situated in the parish of Plympton St. Mary, Devon. No cash payment is to be made by this company for the purchase, nor any promotion money to be paid.

Upwards of 5000 shares are already subscribed for, consequently there are now only 1000 shares to be issued under this prospectus, and it is intended to apply the amount to be received for the creation of a steam-engine and the other works required for the further development of the mine.

The length of the company's property is about 3500 lineal feet from west to east, and about 2500 lineal feet from north to south; it is distant 2½ miles from the Plympton station on the South Devon Railway, giving easy access for all ores and materials, &c., to and from the mine. It is held by deed from the trustees of the late Admiral Woolcombe and Major Strode, at £20 yearly rental merging in the dues at 1-18th, and as soon as a steam-engine is erected the dues will be 1-30th, and is for 20 years, from the 25th March, 1870. The indenture of lease, dated the 1st December, 1870, can be inspected at the company's office.

The Great Champion lode of the district is stated to have returned ore to the value of about two millions sterling (£2,000,000), and it will be seen from the reports that it traverses the mine for about 400 fms.

The assays by Messrs. Johnson, Matthey, and Co. (Assayers to the Bank of England) give the following results:—

CERTIFICATE OF ASSAY.

London, July 10, 1871.—We have examined the samples of minerals marked as under, and find the following to be the results:—

Mark sample, East Bottle Hill Mine.

Sample No. 1, from Bottle Hill copper lode, produce of copper, 29.5 per cent.

Sample No. 2, from shallow adit level east, on north tin lode, produce of tin, 19.9 per cent.

Sample No. 3, from south lode, west of road leading to Hemerdon Village, produce of tin, 8.3 per cent.

Sample No. 4, from south lode, east of the mine, in granite, produce of tin, 4.0 per cent.

A trial shaft has been sunk near the eastern boundary, which has proved the Great Champion lode to be at a distance of about 400 fms. in length, intact through the property, and by the erection of a moderate sized steam-engine—say, 40 to 50-hp. cylinder, with a battery of 45 heads of stamps, costing about £3000—it is estimated that a minimum profit of £10,000 a year from sales of tin may be made.

A great quantity of tin ground is already opened up on No. 3 and 4 lodes, and No. 5, tin lode, will shortly be intersected at depth of 40 fathoms from surface. An iron water-wheel of 60 feet in diameter is erected and a battery of 12 heads of stamps attached thereto, with necessary dressing floors contiguous.

Plans and prospectuses can be had at the offices of the company or by application to the Alliance Bank, London, E.C.

In cases where no allotment is made, the deposit will be returned in full.

N.B.—The SHARE LIST will CLOSE in a FEW DAYS.

REPORTS.

East Bottle Hill Mine, Plympton St. Mary, April 25, 1871.—To work this property on such a scale as its prospects warrant, I should direct full attention to the Bottle Hill main lode; here I have no doubt the results would be so favourable that you will require a good battery of steam-stamps, this would enable you to work a large quantity of tinstone at all seasons of the year, and in fact, bring the mine into a good and profitable state.

THOMAS GREGORY.

Hemerdon, Plympton St. Mary, June 21, 1871.—As regards the productiveness of your Champion lode, I may just state that I have known 70 tons of tin sent off at one sale from Bottle Hill. No person can have a better idea of the remarkable richness of this lode than when I state that as a proof of it there was sold annually from 150 to 250 tons tin, and from 2000 to 3000 tons rich copper ores. The tin averaged at that time about £15 per ton, and the copper £10 to £12 per ton. You have, besides the Champion lode of this district, several other tin lodes each passing through your mine from 450 to 550 fathoms in length. I do not think there is a property in the two counties of Devon and Cornwall which has such great prospects before it. From the great facilities that East Bottle Hill possesses it can be developed to a result equal to the old mine, or indeed to any mine that is working at present in Devon or Cornwall.

HENRY JONES.

* 70 tons of tin at present price (August, 1871), would realise £5600.
† 40 tons ago, 150 tons of tin at £15 per ton, would realise £2500, and 2000 tons of copper at the minimum price of £10 per ton, would fetch £20,000, or a minimum total of £26,500 per annum. The present value would be about £12,000 for tin, and £14,000 for copper.

Ridgegate, Plympton St. Mary, June 23, 1871.—The main lode averages from 6 to 15 feet wide, and is undoubtedly the Great Champion lode of the district. No. 2, tin lode, passes underneath your wheel-pit, and is a most promising lode, carrying gossan and muddle in quantity at 5 fathoms from surface; it averages 2 to 3 feet wide, and traverses the property for 420 fathoms. No. 3, or copper lode, is intersected at a depth of about 9 fathoms, by the deep adit level, averaging in width 18 in. It is driven on the course eastward for 15 fathoms; the copper ore from this lode is very rich, assaying 29½ per cent. No. 4, tin lode, is cut by the deep adit level 18 fathoms from surface, and I have broken some good tin therefrom that will pay well to work on at once; it lode averages from 2 to 4 feet wide, and by driving 15 fathoms further you will get into tin granite, which has never failed in producing rich tin. From this end to the surface would be in height about 25 fathoms in whole ground, which would give some thousands of tons of mineral ground to take away at small cost. You have this lode in your property for a distance of 500 fathoms in length. At the western part of the mine a shaft was sunk 9½ fathoms, where the lode improved to £45 per fathom, according to the written testimony of the late chief agent of Dolcoath (Capt. Thomas), who was looked upon during his day as the most experienced miner in Cornwall, and whose reputation was known throughout Great Britain. No. 5, tin lode, is intersected by the continuation of the deep adit level, at a depth of about 40 fathoms from surface, and by driving east on its course when cut you will have a depth of upwards of 60 fathoms, and a length from east to west of half a mile; this lode is entirely unwrought, and the quantity of mineral ground you will be able to take away high and dry above the deep adit level cannot be reckoned short of one hundred thousand tons, at an estimate of 6 tons to a fathom of lode. The deep adit level is brought up under the hill for a distance of 160 fathoms. To the south of No. 5 lode, the No. 6, tin lode, would be cut at a depth of 50 fathoms; the entire course of this lode through your property is upwards of 550 fathoms, and averages in size, where seen, 3 to 4 feet wide, and a beautiful looking lode as there is to be seen in any mine. There are other known lodes further south, almost under the crown of the hill, which would, when cut, give backs of from 70 to 80 tons of tin;—this I may say is seldom found in any mine.

NICHOLAS FEZZEY.

East Bottle Hill Mine, July 1, 1871.—SIR: I beg to send you a report of this mine.—No. 1, or North Lode: We have commenced to sink on this lode (the main lode of Bottle Hill Mine), which runs through your property—East Bottle Hill—for full 100 fathoms, and has been produced up to their east boundary, and no doubt it will turn out equally good in this, and in my opinion more so as we approach the elvan and granite, a very short distance east of the shaft we have just commenced to sink. I may just say that I have been agent in old Bottle Hill for the last 30 years, and our monthly returns for years was from 15 to 20 tons of tin, and in copper ore from 180 to 200 tons monthly, raised on this lode. Price of tin varied at that time from £45 to £50 per ton. The copper ore was very good; average price about £15 per ton. I have known parcels sold as high as £20 per ton; the standard for copper was then £120 to £140. This lode in old Bottle Hill has been worked for more than half a mile in length; for this distance the lode's average size is full 10 feet wide, with an underlie north 3 ft. In a fathom, and has been worked on to the depth of 170 fms. from surface. This lode alone has returned something like £2,000,000 sterling in ore, and which has given due of very large amount for generations to the ancient family of Strode. Having known this locality for so many years, and seen this lode worked up to your west boundary, and finding the lode productive up to this point, I have no hesitation in saying that if you open up this lode, which passes through your shaft for such a great length (400 fms.), that you will find it turn out equally good, if not better, than in the old Bottle Hill Mine.

No. 2, or Copper Lode.—Is driven 15 fathoms east on its course, average width 18 in., and seen about 9 fathoms from surface. In Bottle Hill it has been productive for both tin and copper ores, and still working on it at a profit; this lode has turned out rich copper ore in your mine, at the shallow depth of 9 fms. producing from 27½ to 30 per cent.;* this lode presents every good indication, and will no doubt be found of great value in depth.

No. 4 lode is worth £25 per fathom, driving at 22s. 6d. per fathom. No. 5, or South Lode.—The cross-cut driving toward this lode, is now within a short distance of it, and will cut it at a depth of 40 fathoms; after meeting with it at this depth, by driving east on its course into the Hill will give upwards of 70 fathoms of backs, all high and dry for between 400 and 500 fathoms in length, which will be taken at a small cost, as no pumping machinery will be required. We have sunk trial shaft on this lode at the western point of our boundary in kiltas, and at a depth of 6 fathoms found it produce rich work for tin. To the east part of the set, full 400 fathoms apart, and in the granite, we sunk on same lode to the depth of 15 feet, and found it at this shallow depth to produce rich stones of tin of superior quality.* We have two other lodes discovered further south, large and promising, but scarcely anything done on them, therefore, little can be said.

A battery of 45 heads of stamps would crush 50 tons of tin ore a day, and with 1½ per cent. produce would yield 15 tons of tin per month, value at present prices of tin £1200, but after opening up the lodes I believe you will by the returns of tin and copper double this amount, therefore allow me to say an engine should be put up that would work 72 heads of stamps with ease.

You have a little south of the mine the South Devon Railway, this would be found of great advantage for bringing materials for working, as well as taking the produce of the mine to market. There is now on the mine a first-class water-wheel, 60 feet by 2½ feet, breast, 12 heads of stamps, and dressing-floors complete, in good working order, also a good smith's shop and powder magazine. I know no mine in the two counties possessing anything like the advantages of East Bottle Hill, it will soon be made a good paying dividend mine, none better in the two counties.

JOSEPH EDDY.

* See Johnson, Matthey, and Co's. (Assayers to the Bank of England), certificate of assay, a copy of which accompanies the prospectus.

LYNOLYS LEAD AND COPPER MINING COMPANY

(LIMITED).

To be incorporated under the Companies Acts, 1862 and 1867.

Capital £12,000, in 12,000 shares of £1 each.

5s. on application, and 5s. on allotment.

Calls not to exceed 2s. 6d. per share, and not to be made at intervals of less than three months.

DIRECTORS.

To be chosen at the first general meeting of subscribers for shares.

BANKERS—Messrs. ROCKE, EYTON, and Co., Shrewsbury.

SOLICITOR—MR. HENRY MORRIS.

SECRETARY—MR. H. J. BADDELEY, Pontesbury.

OFFICES,—SWAN HILL, SHREWSBURY.

PROSPECTUS.

The company is being formed with the object of working the lead, copper, and other minerals under land situated at Lynolys, near Oswestry, Salop.

The area of the land under which the right to work has been reserved is about 300 acres.

The property is most conveniently situated in proximity to the Lynolys Station on the Cambrian Railway Station, and a peculiar feature in it is that adit levels can be driven, and the mines worked to a very considerable extent, without the aid of steam power, thereby enabling the company to further test and develop the property at a very moderate expense.

The value of the property for mining purposes has been ascertained by operations carried on for some months, which have proved the existence of five large well characterised mineral lodes of lead, copper, &c., and a bed of oxide of iron. The promoters have had the property examined and reported upon by competent judges, and they append some of the reports.

It may be added that, in addition to the presence of lead, copper, &c., the geological formation of the property is limestone, offering an opportunity for obtaining stone for fluxing purposes, and for converting into lime.

In the allotment of shares preference will be given to those applicants who desire to pay up in full on allotment.

If no allotment be made, the deposit will be returned in full at an early date, without deduction.

Application for shares may be made in the form accompanying the prospectus, addressed to the Solicitor or Secretary.

Shrewsbury, August 21, 1871.

REPORTS.

Aug. 5.—At your request I have carefully inspected the above mine, and beg to hand you my report thereon. The property is situated near Oswestry, in the county of Salop, and comprises a good tract of ground; its geological formation is limestone, through which five known large and well-defined lodes traverse, but hitherto operations have been confined principally to two lodes—namely, the south or Ranters lode, and the north and south lode. On Ranters lode, which is bearing near east and west, several pits have been sunk to a depth from 3 to 16 yards, and small drivages made for over 100 yards in length, and for the whole distance I find the lode to contain good stones of lead ore, where good pits are now lying at surface, which have been broken in the several pits and drifts. A more promising and encouraging lode cannot be seen so shallow, and I firmly believe, depth is the only thing required to prove this remunerative. This will form a junction with the other lodes passing through the set. There is also a north and south lode, discovered by sinking a shaft which is 25 yards deep, where large stones of copper and carbonates have been broken in. In addition to these lodes there is a bed of oxide of iron running through the set, which is 4 feet thick, and from 15 to 20 yards wide, which can be seen from the mine at a good profit, being close at surface and in proximity to the railway station, and the total expenditure to send it into the market would be very trifling. I beg to remark that two adit levels can be taken up at the foot of the hills, one on the south or Ranters lode, and the other on the north or south lode, and I think that both would come in 80 yards deep on top of the hill where they will form a junction, which I look at as a very favourable feature, and the limestone can be used for burning and other purposes.

In conclusion, allow me to say, I consider you have a property of no small value, and where a vast amount of work can be done without the aid of steam-power, and looking at the several favourable features which the property presents, the prospects are such as to warrant a vigorous prosecution, when I think a small outlay likely to bring it into a profitable position.

JAMES NANCARROW.

August 6, 1871.—This set is situated near Oswestry, in the county of Salop, and comprises a large extent of ground. There are several well-defined mineral lodes opened out, and lead and copper ores broken in. I may note two east and west lodes run nearly parallel in the one on which pits are sunk; the lode is 4 ft. wide, producing ½ ton of lead ore per fathom, at only 5 fms. in depth, which has a northern underlie, and the other on Ranters lode having a southern underlie; I believe in going to a depth of 20 fms. or so you will meet with the junction and a body of lead ore. An adit level can be driven on the course of the lode, which will prove beneficial for the mine and erection of dressing floors, &c. On the north side of the set there is a shaft sunk on a north and south lode, which is producing copper mixed with gossan; I should also recommend that an adit level be also driven at this point on the course of the lode; by so doing you will meet with a junction which no doubt will produce a large body of copper ore, as every indication plainly shows. There is also in another part of this set a large body of oxide of iron, which can be raised cheaply, the set being within a distance of one mile of the railway station, and materials can be procured at a reasonable rate. In conclusion, I feel confident in going to a depth of 80 to 100 yards in this mineral ground you will find a large body of lead and copper ore.

JOHN LESTER.

THE GREAT EAST FOXDALE SILVER-LEAD MINING COMPANY

(LIMITED), ISLE OF MAN.

Capital £20,000, in 20,000 shares of £1 each.

Deposit, 5s. per share on application, and 5s. per share on allotment; the remainder in instalments of 2s. 6d. each, at intervals of not less than two months.

ABRIDGED PROSPECTUS.

The existence of, together with the large quantity of high-priced silver-lead now raised in the Isle of Man, particularly in the Foxdale Mining District, cannot be denied to the attention of all who are interested in the mining of the island, in which there exist such fair and reasonable chances of large returns for a spirited and judicious outlay of capital.

With a view to the advantages alluded to, the present company has been formed for the purpose of working the rich and valuable mine situated in the Isle of Man, and known as the Tynwald Mine, in the Bishop's Barony, parish of Marown, east of and adjoining the Foxdale Mine, together with the adjoining property, a grant of which has been obtained from the Crown.

The extent of the mine is about two miles on the course of the splendid east and west lode from which the celebrated Foxdale Mine has returned enormous quantities of rich silver-lead, from the sale of which the shareholders have received upwards of £200,000 in dividends, and the mine still continues as productive as ever.

On the Tynwald portion of the mine there has been already a large amount of money spent in driving an adit level about 80 fathoms in length, and in sinking the engine-shaft about 50 fathoms, from which sinking there has been obtained about 200 tons of lead ore, leaving a nice course of ore in the bottom of the shaft when last seen.

There are also erected on the works a good engine-house, offices, &c., which will save the company a great outlay and loss of time, and when the necessary machinery is erected the mine will at once be ready for active operations (upon the already discovered lode), which will be carried on in a vigorous manner, under judicious and economical management, when there is no doubt that large and profitable returns will be realised.

Independently of the advantages alluded to there has been discovered east of the Tynwald shaft, and immediately adjoining the new grant of ground, a splendid course of ore a few feet from surface, and opened on for about 30 yards by three cuttings from surface, the deepest not more than 8 feet, in which a splendid lode, with a fine course of solid ore from 8 to 10 inches wide, may be seen, and from which solid pieces of lead, each over 60 lbs. in weight, were taken. This admits of no question, as it is now open to inspection.

The directors, in calling attention to the annexed extracts from reports, beg to say that they have little to add to the statement of facts put forward by men of well-known ability and thorough practical knowledge of mining, both in Wales and in the Isle of Man, beyond stating that they can with the greatest confidence recommend the undertaking, believing that it is free from many risks that generally attend mining speculation; for there are not only lodes of great promise in the sets, but they have actually been cut rich in lead at surface, as stated in the reports; and as the mines are in a district so well known for its mineral wealth, the directors can with every confidence recommend the Great East Foxdale Mine as a good and safe investment.

The Memorandum and Articles of Association may be inspected at the offices of the company, where splendid specimens of ore recently taken from the mine may be seen, and prospectuses and forms of application for shares obtained.

Any further information can be had upon application personally or by letter to T. Huttles, at the office of the company, 39, Seel-street, Liverpool, where also an order to inspect the mine can be obtained.

EXTRACTS FROM REPORTS.

From Capt. JOHN LLOYD, of the Hendre Mines, &c., Flintshire.

To the east of the engine-shaft, some 30 fathoms or thereabouts, three small shallow cuttings, some 30 yards apart, are sunk to the depth of 6 or 7 feet upon the crop of the south lode, and in each of these cuttings a handsome course of ore is now to be seen, from which I cut about a hundredweight of solid silver-lead, as per sample sent to your office. If these are not only lodes of good ore, but there is every indication to warrant it doing so, and should also improve in value, it being a strong masterly lode, with every component matrix, such as oxide of iron, sulphur of zinc, carbonate of lime and lead, which are always the natural gauge of the chief bearing veins of the Silurian rocks of all districts, I see nothing to prevent your having a profitable mine in a very short time in this part alone of your valuable property.

From Capt. MATTHEW GROSE, Manager of the Ballacorkish Silver-lead and Copper Mining Company (Limited).

The state and promise of these mines have been very materially altered for the better by the recent discovery of a lode of very great promise, which is now to be seen at the surface, and has been opened out for a distance of 40 yards in length, and I may just say that I have not seen anything that pleased me so much for several years past. From the knowledge I have of the district, and from information I have gathered together, I am of opinion that there is another lode close by the one that has just been opened out, and which can be easily

proved by cross-cutting from below. I have only to reiterate my former opinion, that my firm conviction is that you have a most valuable property.

From Capt. JOHN KITTO, late Manager of the Great Laxry Mine.

This property is very favourably situated, being in close proximity to the main road leading from Douglas to Peel, and its position offers facilities for the transport of materials, ores, &c., such as are seldom met with in the island. Its geological position is also of the most favourable character, being a continuation of the Foxdale run of mineral ground, and not far from the granite range, which is considered a very desirable object; and the lode on which the principal operations have hitherto been conducted is believed to be identical with one of the main producing lodes in the Foxdale Mine, known as "Beckwith's vein," in that mine has yielded enormous quantities of lead ore, and has returned immense profits to the shareholders.

From Capt. BAWDEN, late Manager of the Isle of Man or Foxdale Mining Company.

Taken in a mining point of view, with the knowledge that the Foxdale vein passes through it, I would venture to state that there is not a more favourable district for mining speculation in the Isle of Man. I find by the surface trials recently made that some splendid specimens of lead ore have been met with on the back of the south of Foxdale vein (about 35 fathoms east of the engine-shaft), which, if it continues in depth, must very materially enhance the value of the property.

NEW HINGSTON MINING COMPANY

(LIMITED),

STOKECLIMSLAND, CORNWALL.

In 12,800 shares of £1 each. Upon application, 5s. per share; upon allotment, 10s.; and 5s. in March, 1872, if required.

The allotment of these shares will be made in a few days. Few mines hold out such promise of early and great success. Samples taken from the lode this week can be seen at the temporary offices of the company, some of which have been assayed by Prof. White, of Finsbury-place, London, and produced 34 per cent. of white tin.

The deeds of the property are in the hands of the company, and enquiries on the part of investors are only needed to ensure a speedy issue of the remaining shares, which must soon be at a large premium.

Prospectuses, reports, &c., can be had on application to Mr. GEORGE MADGE, 3, Crown-chambers, Threadneedle-street, London, E.C.

CARMARTHEN SILVER-LEAD MINING COMPANY

(LIMITED).

Capital £25,000, in 5000 Shares of £5 each.

Deposit £1 per share on application, and £2 on allotment, and the remainder as required.

In the event of no allotment being made, all preliminary expenses will be paid by the vendor, and the £1 paid on application returned without deduction.

DIRECTORS.

SIR EDWIN PEARSON, F.R.S., Wimbledon, Surrey, Director of the

Scottish Australian Investment Company (Limited).

ALEXANDER B. BROWN, Esq., F.R.S., Director of the Vron United

Silver-Lead Mining Company (Limited).

T. A. MASEY, Esq., F.G.S., Director of the Old Trebarg Silver and

Lead Mining Company (Limited).

JAMES DAVIS, Esq., Harley-road, Brompton, Director of the New

Rosario Silver Mining Company (Limited).

BANKERS.

Messrs. FULLER, BANBURY, NIX, and MATHIESON, 77, Lombard-

street, London.

SOLICITORS.

Messrs. SHEPPARD and RILEY, 38A, Moorgate-street, London.

BROKERS.

EDWARD ERNEST GARDNER, Esq., Stock Exchange, London.

RUTHVEN C. TODD, Esq., Stock Exchange, Glasgow.

THOMAS MORRIS, Esq., Stock Exchange, Liverpool.

Messrs. JENKINSON and SON, Stock Exchange, Manchester.

SECRETARY.—JAMES W. THOMAS, Esq.

OFFICES,—1, CIRCUS-PLACE, FINSBURY-CIRCUS, LONDON, E.C.

ABRIDGED PROSPECTUS.

This company is formed to acquire the leases and work the valuable silver-

lead mines situate at Trelech, in the county of Carmarthenshire.

Former proprietors, with capital of less than £1000, raised from one of the

lodes nearly 800 tons of lead ore, which produced upwards of £10,000; the stops

at the bottom of the 54 fathom level yielded 2½ tons per fathom.

The reports show that there are several veins or lodes running parallel with

each other—five distinct lodes having been intersected by the deep adit level

within an area of 65 fathoms.

The late Mr. Evan Hopkins, in his report, says:—"The formation embraces

one of the best metalliferous ranges in the Principality."

Capt. Waters, who lately reported as to the richness of the Van Mine, says of

this set:—"The average yield for 20 fathoms long, between the 42 and 54 fm.

levels, has been 2 tons per fathom, four men getting therefrom 18 tons monthly

during the past year. The rock is of a splendid character, and warrants a con-

tinuation of the ore downwards."

Capt. Sanders confirms, in every respect, the opinions of Capt. Waters, and

states:—"Here you have all the elements of an extensive and profitable mine."

Capt. Paul says:—"I am able to speak with great positiveness as to the future

workings. I have seen nothing amongst any of the Cardiganshire mines I have

inspected presenting more of the bona fides of safe mining than Carm

THE KANSAS MINING COMPANY (LIMITED).

Incorporated under the Companies Acts, 1862 and 1867.

Capital £55,000, in 11,000 Shares of £5 each.

First issue of 10,000 shares.

Deposit £2 10s. on application, and £2 10s. on allotment.

DIRECTORS.

C. J. FURLONGER, Esq., 81, Throgmorton-street, E.C.
W. GUNDY, Esq., 75, Old Broad-street, E.C.
JOHN HESLITINE, Esq., 9, Warfield-court, E.C.
ROBT. F. HOLDENESS, Esq., St. Michael's House, Cornhill, E.C.
H. W. LINDOW, Esq., 11, Crownwood-road, South Kensington, W.
W. G. MARGETTS, Esq., 7, Warfield-court, E.C.
W. N. RUDGE, Esq., 9, St. James's-street, S.W.
SOLICITOR—THOS. DONNITHORN, Esq., 30, Gracechurch-street, E.C.

BANKERS—THE ALLIANCE BANK (LIMITED).

SECRETARY—H. WILSON.

TEMPORARY OFFICES,—3, NEWMAN'S COURT, CORNHILL, E.C.

This company is formed for the purpose of purchasing and working a mining property situated in the Nevada mining district, in the county of Gilpin, territory of Colorado, and comprising a plot of land 400 feet in length upon the Kansas lode, together with the plant, buildings, machinery, and effects in, upon, and about the said lode and plots of land, and which may be described as follows:—A certain property situated, lying, and being in the county of Gilpin, territory of Colorado, and known as mining claims Nos. 6, 7, 8, and 9, east from the Discovery claim (Jones and Matteson's discovery), on the Kansas lode, situated in Nevada mining district, and all and singular the rights and privileges of the vendor in and upon the said lode and plots of land.

The following is the report of HENRY ROBINSON, Esq., M.M. Inst. C.E., F.R.G.S., of the firm of Messrs. Sheldford and Robinson, 7, Westminster-chambers, Victoria-street, London:—

The property is situated at Nevada, close to Central City, Colorado, which is within 4½ days' railway travel from New York. The exact extent of the property is shown on the accompanying plan, prepared and certified by Mr. H. A. Say, the Government Mineral Surveyor of Colorado District. It consists of 400 feet on the Kansas gold vein, which is one of the most important veins in this district, and of Colorado gold mining. The title has been examined and approved by the Honorable Hugh Butler, of Central City.

The vein on this property has a bearing N. 67° 30' east, and a dip to the south. It is a true fissure vein, rich in gold and silver, in combination chiefly with galena, iron pyrites, sulphurets, and arsenides of copper. It is opened out by three shafts 127 feet and 94 feet from each other, which are very favourably situated for the present and future working of the mine. The main shaft is 10 feet by 4 feet, and is sunk 140 feet from the surface on the vein. The first level is at 84 feet from the surface. It is driven 75 feet to the west, and 40 feet to the east.

In the west drift the vein is 7 feet wide, increasing to 9 feet at 45 feet from shaft. In the east level the vein increases in width from 7 feet at the shaft to 12 feet 15 feet from the shaft, and continuing this great width it diminishes to 6 feet at the point where it meets the drift from the east (or Hardesty) shaft. At the depth of 110 feet from the surface is the second level on the vein. The whole of the ore ground between this and the 84 ft. level is available for stoping, and affords a good reserve. At the further depth of 120 feet the vein divides into two veins, one dipping north and 5 feet in width, and the other dipping south and 6 feet in width; the main shaft being sunk to follow the north branch. These two veins will probably come together when a further improvement may be anticipated. At 94 feet east of the main shaft is the Hardesty shaft, 4 feet by 10 feet, which is sunk 82 feet on the vein. At a depth of 75 feet a drift has been run on the vein to join the main shaft, and this drift enables the ore ground between the 84 and 110 feet levels to be stoped out. At the bottom of the Hardesty shaft the vein is from 6 to 7 feet wide. At 127 feet west of the main shaft is the Langford shaft, 7 feet by 3 feet 3 in., which has been sunk on the vein to about 40 feet. This has not been used at present, but will be valuable for opening out the ore ground in the west. There is but little water to raise from the mine, and a small steam-engine now does all the winding of ore and water.

In order to verify the reports and statements respecting the richness of this vein, portions were collected from the following points. They were taken over the whole width of the vein, and may be considered as giving a fair average. The assays were made by Mr. Burlingham, the territorial assayer, and are appended to this report:—

No. 1. From slope at 50 feet in west drift, 84 feet level—
Gold..... 14 dwts. per ton. Silver..... 1 oz. 8 dwts. per ton of 2000 lbs.
No. 2. From vein at slope 40 feet east of main shaft, 84 feet level—
Gold..... 18 dwts. per ton. Silver..... 2 ozs. per ton.
No. 3. From 110 feet level close to main shaft—
Gold..... 1 oz. 12 dwts. per ton. Silver..... 2 ozs. 16 dwts. per ton.
No. 4. From richer portion of the vein which has to be reduced by smelting—
Gold..... 8 ozs. 12 dwts. per ton. Silver..... 5 ozs. 16 dwts. per ton.
No. 5. From 75 feet level at Hardesty shaft—
Gold..... 12 dwts. per ton. Silver..... 2 ozs. 8 dwts. per ton.
No. 6. From bottom of main shaft, 140 feet deep (lowest point of mine).
Gold..... 14 ozs. per ton. Silver..... 11 ozs. 8 dwts. per ton.

This is a very high return, and further confirms the opinion of the increasing richness of the vein at greater depths, and leads to the conclusion that below any of the present depths it will give better returns than it does even now.

The following estimate will enable an opinion to be formed of the probable results of working this property:—

The amount of ore ground now standing, and capable of being removed by the present levels and shafts is estimated at 430 fms., which is equivalent to 800,000 tons. The gross value of this reserve, if taken at only 1 oz. to the ton, is £25,000, and the net value £20,000. This could be realised in a few months, during which time the workings should be extended both in length and depth, and the mine rendered capable of producing a profit of £25,000 per annum.

From the accounts of the present owners, taken from the books of their bankers, Messrs. Thatcher, Standley, and Co., it appears that 150 fms. of the mine yielded between 1st May and 16th July last \$33,920, or £6785.

The following letter from the bankers will show the exact returns:—
Central City, Colorado, July 26, 1871.—DEAR SIR: In answering your request, we would state that our books show sales of gold and ore, by Messrs. Gray, Bennett, and Co., lessees, of 150 fms. of the Hardesty vein, on Kansas lode, to have been from May 1st to July 16th—say, \$33,920-58 (£6785). Being authorised to make settlements with Gray, Bennett, and Co. for the owner of each lot of gold and ore, we find, after paying 10 per cent. of the gross yield to owner, and buying "bolting rig" engine, &c., they divided a net profit of—say, \$16,487-70 (£3296). We may add, for the force employed and the size of the mine, it is now the largest paying property in the country to our knowledge.

Signed, HENRY ROBINSON, Esq., CENTRAL CITY, COLORADO.

The increasing richness of the vein at the bottom of the mine leads the present owners to anticipate a net return of 3000l. per month, as will be seen by reference to the following memorandum, which was furnished by Messrs. Thatcher, Standley, and Co.:—

MEMO.—Gray, Root, and Co., will extract from the mine (say)—
10 tons smelting ore per day..... \$200
40 cords mill ore, worth 80c. per cord, or 32 ozs., worth per day..... \$320
Thus far every ton of ore will give a net profit of 60c. per ton.

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Thus far every ton of ore will give a net profit of 60c. per ton.

ore on the basis of a gross yield of only 1 oz. to the ton, but from the foregoing returns we think it may safely be taken at 1½ oz. to the ton.

This will increase the value of the reserve ore ground now standing, and capable of being removed by the present levels and shafts, to £30,000 gross (instead of £25,000, stated in the report), and the net value will be increased to £20,000 (instead of £15,000, stated in the report).

SHELDON and ROBINSON, M.M. Inst. C.E., F.F.G.S.

Central City, Colo., July 31, 1871.—DEAR SIR: As I did not get any statements (official) from the smelting companies concerning ores from the Kansas Mine before you left, I now forward you some from the three smelting establishments located here. From them it will be seen that the lessees of 150 fms. of this mine sold to smelters (say) 166½ tons of ore during the month of June, at \$43-50 average, they paying for the same not more than 50 per cent. of its currency value per ton.

For the same month there was returned to our office by millowners 830 ozs. gold, the product of 103 cords mill ore from this mine.

The gold was purchased by our firm, and brought..... \$15,140 0
The return from smelting ore, as above..... 7,231 69

Total..... \$22,371 69

The lessees worked an average force of (say) 20 men, and less than 150 feet of the mine. During this month I learn the smelting ore has averaged over \$50 per ton, and the mill ore equally as good as for June.

J. H. THATCHER, (Thatcher, Standley, and Co., Bankers.)
The Memorandum and Articles of Association, together with the agreement with the vendor, can be seen at the offices of the company's solicitor.

The LIST OF APPLICATIONS FOR SHARES will CLOSE on MONDAY, the 11th September.

Registration of New Companies.

The following joint-stock companies have been registered:—

SOUTH AFRICAN SILVER AND COPPER MINING COMPANY (LIMITED).—As the title of this company plainly indicates, the objects which it is formed to carry out are mining and smelting in South Africa. The nominal capital is 50,000l., in 2½ shares, and the subscribers to the Memorandum of Association are—Charles Rule, 10, Clement's-lane, London, E.C.; T. Cattell, 188, Strand; J. S. Hineks, 35, Gracechurch-street; C. J. Wollaston, Chislehurst; John Lean, 11, Colonge-road, New Wandsworth; Joseph Hodge, 32, New Broad-street; and Henry Yeates, 85, Gracechurch-street. These each agree to take up one share in the company's capital.

REINSHAW SILVER MINING COMPANY (LIMITED).—This company is registered for the purpose of buying off and working a mining property situated at Idaho, Clear Creek County, Colorado, known as the "Santon Lode." The capital is 60,000l., in 15,000 shares of 4l. each. The promoters are—George Latham Browne, Gresham House; L. T. Wingfall, 12, Wyndham-place, Bryanston-square; J. J. Bennett, 50, Gracechurch-street; J. M. Smith, 4, New Broad-street; J. T. Donovan, 1, Loar-street, Southwark; Auguste Sampson, 40, Grove-road, St. John's Wood; and Richard Guy, Hammersmith, each of whom take up one share.

FELLING COAL, IRON, AND CHEMICAL COMPANY (LIMITED).—Capital 200,000l., in 2000 shares of 100l. each. This company is formed to acquire by purchase the chemical works and stock-in-trade of Frazer, Roberts, and Co. (Limited), and intends to carry on trading operations of a strangely diversified character. The businesses of dealers and manufacturers of iron, of chemical manufacturers, and of coal owners may seem to form a curious combination when rolled into one, but all these this company proposes to undertake. The subscribers are George Elliot, Houghton House, Darham, 100 shares; Henry Coxon, Newcastle, 20; William Hunter, Newcastle, 20; S. B. Coxon, Darham, 20; John Johansson, 5, Gloucester-sq., Hyde-park, 20; Daniel Mann, Thistle Cottage, Seaham, 30; Wm. Dalglish, Chester, 10.

NEW ATLANTA SILVER MINING COMPANY (LIMITED).—This is a mining company established (with a nominal capital of 250,000l., in 50,000 shares of 5l. each) to purchase certain property belonging to the Monarch Gold and Silver Mining Company, which property is situated in the Middle Boise mining district, in the county of Alturas, Idaho. The subscribers to the Memorandum of Association are some 40 in number. The directors are Charles J. Furlonger, Esq., 31, Throgmorton-street; William Gundry, Esq., 75, Old Broad-street; H. W. Lindow, Army and Navy Club; W. G. Margetts, 7, Warfield-court; W. N. Rudge, 9, St. James's-street.

BIRMINGHAM AND MIDLAND COUNTIES VAL DE TRAVERS PAVING COMPANY (LIMITED).—Nominal capital 80,000l., in 16,000 shares of 5l. each. Under an agreement entered into between Mr. John Slagg, of Manchester, and the Val de Travers Asphaltic Paving Company (Limited), this company is formed to carry on operations in asphaltic paving in Warwickshire, Shropshire, Northamptonshire, Nottinghamshire, and Derbyshire. The promoters of this concern are—Messrs. John Cartland, King's-heath, Worcestershire; Frederick Everitt, Mayfield, Edgbaston; H. R. Moseley, The Common, Worcester; W. W. Riddell, Graveley Hall, Birmingham; W. H. Dixon, The Beeches, Edgbaston; J. H. Nettlefold, 14, Broad-street, Birmingham; Samuel Thornton, Oldfield.

MERCANTILE FINANCIAL ASSOCIATION (LIMITED).—Capital 100,000l., in 20,000 shares of 5l. each. This company is formed to promote, foster, and aid the establishment and working of financial, commercial, and industrial undertakings. The promoters are—Jas. Johnson, Hindley-green, Lancashire; Henry Chalton, Loughborough-road North, Brixton; G. H. Cardozo, 15, Broad-street; John Burbridge, 8, Clifton-road, St. John's Wood; A. W. Maberly, 1, Brunswick-road, Gloucester; Nathaniel Plants, 17, Exeter Hall; J. R. Ross, 27, Gresham-street. These gentlemen evince their interest in the company's success by taking up 20 shares each, with the exception of Mr. Burbridge, who takes up 40 shares.

CANADIAN OILWORKS CORPORATION (LIMITED).—Although only just registered, this company was, we believe, formed some years ago, for the purpose of working oil wells in the district of Ontario, in Canada. The company's estates comprise some 1118 acres of oil land, in the county of Lambton, Ontario, and embraces frontages in the townships of Plympton, Dawn, Enniskillen, and Petrolia, the whole of which district is well known as largely productive of mineral oils. The directors of the company have lately authorised the issue of 1600 first mortgage debenture bonds of 100l. each, bearing 12 per cent. interest, payable half-yearly at the London and County Bank. The share capital of the company is 340,000l., in 13,600 shares of 25l. each, and the allottees of fully paid-up bonds have the right to an apportionment of one share for each bond on payment down of the 25l. The subscribers to the Memorandum of Association are—Sir J. C. Dalrymple Hay, Bart., M.P., 108, St. George's-square, 40 shares; Sir Seymour J. Blane, Bart., C.B., 18, Victoria-square, 40 shares; E. M. Eastwick, M.P., 38, Thurlow-square, 40 shares; Eaton Edvaine, 3, Pall Mall, 100 shares; John Hicks, 25, Abingdon Villas, Kensington, 10 shares; C. W. D. Sturgeon, 11, King's-bench-walk, Temple, 15 shares; T. J. Tait, Lavender-road, Dalston, 10 shares.

PRICES OF MATERIALS.

As charged at the NORTH LEVANT MINES during the following months:—

Description.	April.	May.	June.
Hoop iron.....per cwt.	13s. 6d.	13s. 0d.	—
Nails, 3 inch patent.....	—	23 0	—
Steel-point shovels.....per cwt.	48 0	48 0	—
Leather.....per lb.	—	1 6	—
Norway timber.....per load	37 6	37 6	37 6
Red pine ditto.....per foot	1 2	1 2	—
Coals M. C. O.....per ton	12 0	12 0	11 9
Best registered candles.....per doz.	5 3	5 3	5 3
Grease.....per cwt.	—	11 0	—
Powder.....per 100 lbs.	42 0	42 0	—
Safety fuse.....per coil	0 4	0 4	0 4

* Delivered free of carriage.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending September 3 were 10,748l. 0s. 10d.

REFINING CAST-IRON.—The invention of Mr. J. HENDERSON, of New York, relates to the removing of the silicon, sulphur, phosphorus, and carbon from crude cast-iron by means of the application to the iron of substances capable of evolving fluorine. The fluorine in the form of fluor-spar, or other fluoride, may be employed either in combination with volatile or liquid substances containing or capable of evolving oxygen, or in combination with such substances and also with nitric or other salts of the alkalies, or any other solid substances containing or capable of evolving acids which will liberate fluorine from the fluorides, so that it may act upon the silicon in the crude iron.

Meetings of Public Companies.

TERRAS TIN MINING COMPANY.

The second annual general meeting of shareholders was held at the City Terminus Hotel, on Tuesday, —MR. JAMES PEARCE in the chair. The SECRETARY read the notice convening the meeting.

The report of the agent was read, as follows:—

Sept. 1.—I beg to hand you my report for the general meeting, to be held on the 5th instant, showing the amount of work done, together with the progress made, and the general prospects of the mine. Upwards of 160 fms. of levels have been driven in various parts of the mine, and all the necessary arrangements for largely increased quantities of tinstuff, in order to supply the contemplated additional stamping power, and which will be immediately proceeded with. A patent stone-breaker has been erected, together with an excellent 12-horse power engine for driving the same. A powerful 50 inch cylinder engine has also been put up, and all the necessary buildings for the same well and substantially done, and a variety of other work incidental to the laying out of the mine on an extensive scale. The tin dressing department has been greatly extended, in order to deal with the increased quantities of stuff. The deep level has been extended on the course of the stanniferous vein for upwards of 30 fms., and a large amount of valuable tin ground laid open at this point. A winze has also been sunk in the bottom of the deep level, on the vein, and superior tin ground is being opened up, and which will be available in a short time. The new winch-shaft (now down about 12 fms.) is for the purpose of taking up the stuff below the deep level with greater facility and economy, and also to ventilate this portion of the mine. Upwards of 40 fms. of levels have been driven at Edwards', and for the greater portion of this distance the lode has been productive for tin; this ground will be available from the 30 ft. cross-cut from the new engine-shaft. Little was to be hoped for in extending the 20 east, at Edwards', from the lode itself, the old men having worked down close to us for nearly the whole of the distance driven. Our main object was to intersect the large vein, which we have recently done, and have driven into it about 25 ft., 18 ft. of which is soft and friable, containing tin, but not rich; the easterly portion is harder, and producing more tin, with promise of further improvement. The counter lode at Edwards' is opening out well, and augurs well in depth; this lode intersects Edwards' lode at nearly right angles, and at the point of intersection the lode has been invariably rich, as depth is attained we may reasonably calculate upon a further improvement. The new engine-shaft has been sunk 22 fms. from surface, but our sinking has been much impeded by a sequence of our meeting with a large blue vein—a close, compact, and sharp rock, and although of the hardest class one of our lodes has lived in and entirely through it, and which has produced some excellent tinstuff; this lode will intersect the counter lode now being driven on at Edwards', and, both having opposite underlies, will converge or meet at about the 30 fm. level, but north of the new engine-shaft, and within a reasonable distance of 10—say, about 25 fms.; the meeting of these lodes, both in junction and obliquely, will form an interesting point in the future, and can only be fully explained by our practical working and future development of the mine. We have much pleasure in communicating the fact of our having struck the clay-slate in the new engine-shaft; the sinking henceforth will be rapid, and no time will be lost in getting down to the 30, and cross-cut put out to Edwards' lode. The 30 west, on Edwards', will intersect Richards' lode about 60 fms. west of new engine-shaft; this will serve as a main drain for this part of the mine. Winch-shafts will have to be put down at proper distances for the purpose of taking up the stuff. There are other lodes intersecting, which will be intersected and opened upon. Cross-cuts will be extended north and south of the engine-shaft to intersect the whole of the lodes in its vicinity, all of which, so far as seen and opened upon, have given very satisfactory results, and there is little doubt but that they will materially improve in depth. At the north part of the mine, and distant about 300 fms. from the great engine-shaft, a shaft has been cleared up, secured, and sunk 14 fms. from surface, and a level driven on the course of Crocker's lode for about 10 fms.; the yield of tin was fair, and the ground excellent—a beautiful kilas or clay-slate. A cross-cut south towards Richards' lode has been put out 100 fms.; this lode is yielding very fairly, and producing some very good tin; this lode has been opened upon by us for a great many fathoms, and found to be uniformly good. The cross-cut tin is being extended in order to cut Richards' lode, and which we hope to do in a short time; the clay-slate and Crocker's lodes have been wrought on at shallow depths by the old men for several hundreds of fathoms in length, and the inference is they must have had something to have induced them to work so extensively and continuously on the course of the lodes; we regard this as a most interesting part of the property. The new vein is yielding very fairly, and almost any reasonable quantity of stuff can be obtained at comparatively little cost. In opening up one new tramway cutting to the vein we have necessarily had to put in some low quality stuff to the stamps, but this has been satisfactory, considering the cheapness with which it can be raised and reduced, much larger quantities of tin will be obtained as we get into the deeper portions of the vein. The new counter lode, which has recently been opened, is 2 ft. 6 in. wide, and yielding exceedingly good tinstuff, and we now have the lode in the new trial shaft, and which is equal in richness to the stuff raised a little to the south when first discovered; the object of this shaft is to get down to the water line, and then open longwise on its course, and to excavate in the usual way. Our present workings are within 50 ft. of our stamping machinery, both of the new vein and on the vein, and will attain a depth as we proceed, and reach the extreme height of the hill of some 35 fms., so that our resources from this quarter alone are practically inexhaustible, and almost any reasonable number of heads can be supplied. The new counter lode has a different bearing to the vein, and will pass into it about 10 fms. from our present point of working, when, without doubt, it will be favourably influenced. We have a series of lodes, veins, and branches crossing each other—in fact, a regular network of lodes and branches, all of which contain tin more or less, and all each having an influence upon the other. A very large amount of work has been done in opening upon the various lodes, veins, and branches, tramways laid down, shafts sunk, and all the necessary appliances and apparatus for increased returns, but it should be borne in mind that our workings hitherto have been particularly in opening out the mine, and very little advantage has been derived up to the present time by way of excavating, the benefit of our past explorations will be felt in the future; our present yield of tin will exceed all former ones, and when in full operation satisfactory returns may be relied on, and more particularly so when we can operate on Edwards', Richards', and other lodes and veins at the 30 fm. level by means of our great engine-shaft.

MARTIN RICKARD.

The report of the directors was read, as follows:—

In presenting the accompanying balance-sheet of the first year's operations the directors do so with the full assurance that it will meet with the approbation of the members of the company, as they consider it presents a very gratifying state of things when it is borne in mind the short time the mine has been at work. Although the disposable balance is not so large as your directors could have wished, yet, when it is considered the vast amount of work that has been executed in opening up and developing the mine, your directors are convinced that the mine will compare most favourably with any other mine in the county of Cornwall. It has been at work about a year only, and in that time your directors can with the utmost confidence say that there is no mine in Cornwall in which such an amount of work has been done in the same time as at Terras. Your directors are pleased to inform the members that the result of the workings has proved to demonstrate that the set contains a vast amount of tin ground, and which will return handsome profits for many years to come. The directors desire to mention that the present set is much more extensive than the one which was in existence at the time of the incorporation of the company, and they have obtained a concession from the landlord of more favourable terms as to dues, &c. The mine has been recently inspected, at the instigation of independent shareholders, by Capt. Hosking, of Cara Iren, by Capt. Pope, of Redruth, and Capt. Hampton, of Bodmin, all excellent miners, whose reports have been kindly placed in the hands of your directors for their use, and it is with the utmost pleasure that your directors refer the members to these reports, as they give a independent testimony of the great value and great and future prospects of your mine. Your directors do not recommend the division of the present disposable balance, but that the same be kept in hand. They entertain the strongest conviction that by the end of the present year the mine will return still greater profits, and by that time they hope to be in a position to declare a good dividend, which they have reason to believe will be continued at regular intervals. The directors refer the members to the report of the agent, Captain Martin Rickard, who gives details of the works accomplished, and of the ground laid open, and reports on the encouraging prospects of the mine at the many points of its workings.

The CHAIRMAN moved that the report and balance-sheet be received and adopted. —MR. BANBURY seconded the proposition. There could not be a divided opinion as to the satisfactory and encouraging character of the report submitted, nor as to the business-like way in which every detail was carried out. It was evident that all they had now to do was to increase their stamping power to make the mine a good paying one.

Dr. TAYLOR said that for his own personal satisfaction he had visited the mine, including the underground operations. From the information he had gained he had no hesitation in saying he confirmed the opinion that they possessed a valuable property. They had not to seek for tin; it was there in any proportion. They liked to carry away—it was marvellous to those who confirmed what he saw himself. He was also very much satisfied with the captain, and also the manner in which the operations were being carried out. Each shareholder had reason to be satisfied, and also to be very hopeful that in a short time they would be in receipt not only of fair but large dividends. He (Dr. Taylor) was not satisfied with his own observations alone, but availed himself of the opinion of a well known and experienced agent, Capt. Pope, who inspected the mine, not (he understood) at the instance of the directors, but for a private individual, and had no leaning whatever in favour of the property. In his report Capt. Pope says that there are large quantities of tin, and that the returning charges will be very moderate. It presents a very promising appearance, and being traversed by so many lodes and cross-courses the time is not far distant when a profitable and lasting mine will be found. Before he (Dr. Taylor) received that report he was a large holder, but he had since increased his interest. As he had already said, he was very much satisfied with the way in which Capt. Rickard was carrying on the operations, and everything was being done that could be to promote the interest of the company. The shareholders were much indebted to the executive for their intelligence and untiring exertions on the company's behalf.

Mr. BURGESS said he had had something like 20 years' experience of Captain Pope, and could fully corroborate the high opinion which Dr. Taylor and Mr. H. (Mr. Briggs) wanted no further evidence to show that they possessed a large and valuable property.

Capt. RICKARD explained at some length the different points of operation referred to in his report. The present stamping power was 48 heads, but 16 additional heads were in course of construction, and would be completed in about

three months. They calculated upon reducing 1 ton of stuff per head per day, varying in proportion with its hardness.

Mr. BRIGGS asked the distance on the course of the new lode from the engine-shaft?—Capt. RICHARD said it was about 18 fms. The trial shaft has been sunk about 6 fms. on the new lode, and in about three months the ground would be fairly laid open. The mine never looked so well as it did at the present time. Their endeavour was to lay out the mine so as to keep constantly at work the additional number of stamps when erected.

A report was read from Capt. Hosking, of Carn Brea, the result of an inspection made for a private shareholder holding a large interest in the company. The report was of a favourable character; a vigorous development of the mine was recommended by which it was stated the returns and profits would be increased. A report was then read from Capt. Hampton, which, it was explained, had been obtained at the instance of the directors, with the view of supporting Capt. RICHARD, the manager. Capt. Hampton referred to the new lode as a great prize, and described the mine as a wonder, and having some hundred fathoms of ground in length, success was not only certain, but near at hand.

Mr. BROWN said he had recently visited the mine, and was very much pleased with all he saw. It would surprise a stranger to see how much work had been done in such a short time. He thought there was every reason to be satisfied.

The motion adopting the report and balance-sheet was put and carried.

Upon the proposition of Mr. BRIGGS, seconded by Dr. TAYLOR, it was unanimously resolved that Mr. Stewart, of Dalhousie, be elected a director. Dr. Taylor was also added to the board.

A special vote of thanks was passed to Mr. Marten, the managing director, for his continued attention to the company's interests, and also to Mr. S. Pearce, the secretary.

Mr. MARTIN said he felt gratified at having done his duty, and also that his efforts had met with the approval of the shareholders. When he took hold of this property it was with the strong conviction that its intrinsic value was hardly to be estimated. That conviction had been strengthened by the development of the mine. Many friends had united with them, and he felt proud in being associated with so many respectable shareholders. He would continue to do his duty, and if he could do so he would be perfectly willing to be told of it. He expected by December some tangible evidence of the value of the property would be given to the shareholders.

Mr. HOOKER asked if a dividend might be expected in December?—The Chairman replied in the affirmative.

A vote of thanks to the Chairman and Directors concluded the proceedings.

HOBB'S HILL MINING COMPANY.

At an ordinary general meeting of shareholders, held at the offices of the company, New Broad-street, London, on Friday (yesterday), the Chairman (Mr. C. THOMAS) reported that the meeting was called in pursuance of the Act of Parliament requiring that the shareholders should be called together within four months from the date of registration of the company. No special business was proposed to be done, he simply had to state that the objects for which the company was formed were being carried out with the energy that was considered advisable, and had resulted in the discovery of a mine that presented every appearance of becoming productive of large quantities of tin of sufficient richness to be remunerative to the company. The financial position of the company was so far satisfactory that a balance of capital remains on the credit side of the books to the extent of £3000, which was not likely to be reduced, but for the purpose of prebarring and erecting machinery for the more extended operations. The returns of tin now exceed the monthly expenditure, and it is confidently anticipated by the directors, as well as the members of the company, before the next general meeting, will be increased considerably. The Chairman congratulated the shareholders on the prospects of the undertaking. A vote of thanks to the Chairman terminated the proceedings.

NEW ROSARIO SILVER MINING COMPANY.

The first annual general meeting of shareholders was held at the offices, Finsbury-circus, on Wednesday.—Mr. GOODSON in the chair. Mr. H. W. MATHIAS (the secretary) read the notice convening the meeting.

The report of the directors states that Mr. GROSE, in a letter dated July 6, urges the company to vigorously prosecute their operations, adding that the property is the best in the district and that in consequence of the brilliant success of the Guatemalan (a neighbouring mine), which has produced an immense local impulse for mining operations, companies have been formed to work Cincos, Senores, La Perla, Los Angeles, and La Dificultad y Esquilpa. The Dificultad is on the same lode as the San Pedro, to the south of the company's sett some 500 varas, and the other mines are on a parallel with the Encarnacion lode. The directors are glad to state that they have recently acquired the Providencia sett, a mine contiguous to the New Rosario sett, upon favourable terms. Mr. PEARCE, in his letter of July 8, says:—“A more promising mine does not exist in Real del Monte.” In addition to the preliminary work, it is intended to sink the San Francisco shaft 20 fathoms deeper, and to employ a number of hands to break ore from the Encarnacion and San Francisco lodes, both of which are stated to be sufficiently productive to yield a good profit at once. Eight samples of ore recently taken from the property, and brought over by a practical miner of repute, who visited the mines, and broke the samples himself, have been assayed by Prof. WHITE, and show remarkably satisfactory results. The directors cannot but think, after considering the reports, and carefully weighing the opinions expressed by those in the vicinity of the property, that with time satisfactory results are sure to be obtained.

The CHAIRMAN said this was the first annual meeting of the company, and the shareholders would have gathered from the report the present position and prospects of the company. Although the report now submitted could not be concluded with the satisfactory announcement of the declaration of a dividend, the directors hoped from the reports which they received from the other side that satisfactory results would soon be realised. The agent who had the conduct of the mine—Capt. GROSE—had had very great experience, having been for many years practically connected with mines in the district. The other gentlemen interested in the company all gave the fullest assurance that the New Rosario Mine was one that deserved the greatest attention. A gentleman during a visit to the country called at the company's mines and saw Capt. GROSE; he took some specimens of ore, which upon their arrival in England were submitted for analysis, the result of which, in justice to the shareholders, had been published in the report—a result which could not fail to be most satisfactory. Most mining companies required some two or three years' operations before beginning to pay dividends, but he hoped the New Rosario would not be so long in attaining that desirable position, the information received from the mines giving reason to suppose that any day the gratifying intelligence may be received that New Rosario, like its neighbour, had proved a mine of very great richness. Each report received from the manager had been forwarded in *extenso* to the shareholders, who were, therefore, as well able to judge of the value of the property as the directors. With those few remarks, he would move that the report and balance-sheet be received and adopted.—Mr. J. DAVIS seconded the proposition, which was put and carried unanimously.

The CHAIRMAN said he had very great pleasure in proposing the re-election of Mr. DAVIS as director. Mr. DAVIS's considerable experience in mining matters had been of very great advantage to the company.—Mr. JONES, in seconding the proposition, testified to Mr. DAVIS's continuous attention to the company's interests having been most valuable.—The motion was put and carried unanimously.

Mr. C. MORRIS called attention to the paragraph in the report which stated that Providencia was the most promising unexplored mine in Real del Monte.

Mr. STREET reminded the shareholders that they had purchased only a portion of this mine, the Mexican proprietors reserving 14-24ths. The company had succeeded in acquiring 10-24ths for 200, which was really worth 5000, taking into consideration the selling price of that portion which was held by the Mexican proprietors. This being the opinion of persons residing upon the spot spoke well for the future of the mine.

A vote of thanks to the Chairman and Directors terminated the proceedings.

WATSON BROTHERS, MINING AGENTS, STOCK AND SHARE DEALERS, &c., 1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

SATURDAY.—Carn Brea in good demand, and advanced to 135, buyers, ex div. Eberhardt, Grenville, West Caradon, and Pacific shares firm, at quotations. East Lovell flatter. Carn Brea, 135 to 140; Eberhardt, 38 to 39; Grenville, 7½ to 7¾; West Caradon, 45s. to 55s.; Pacific, 5¼ to 5½; East Lovell, 32 to 33; Utah, 14½ to 15; East Van, 12½ to 13½; Tankerville, 17 to 17½; West Bassett, 4½ to 5.

MONDAY.—Market moderately active for Carn Brea, Pacific, Utah, South Condurrow, and Eberhardt. Carn Brea, 137½ to 142½; Pacific, 5½ to 6; Utah, 16 to 17; South Condurrow, 9½ to 9¾; Eberhardt, 38 to 39; New Rosewarne, 20 to 22; New Lovell, 1½ to 2; Great Vor, 9½ to 10; East Lovell, 11 to 13; Tankerville, 16½ to 17½; Utah, 14½ to 15; West Caradon, 2½ to 3.

TUESDAY.—Active demand for Carn Brea, West Frances, West Bassett, Pacific, and Utah. Carn Brea, 137½ to 142½; West Frances, 50 to 61; West Bassett, 5 to 5½; Pacific, 5½ to 5¾; Utah, 16 to 16½; New Rosewarne, 20 to 22; East Lovell, 11 to 12; Perkins Beach, 1½ to 1½; South Condurrow, 9½ to 9¾; Tankerville, 16½ to 17½; Utah, 14½ to 15; West Caradon, 2½ to 3; Kitty (St. Agnes), 9½ to 10; Grenville, 7 to 7½; West Tankerville, 3½ to 3¾.

WEDNESDAY.—Market very quiet indeed, and prices in most cases nominal. Carn Brea, 140 to 150; East Lovell, 11 to 12; Roman Gravel, 18 to 19; Great Vor, 9½ to 10½; West Chiverton, 10 to 10½; Eberhardt, 36 to 37; West Bassett, 5 to 5½; Point Grey, 3½ to 4½.

THURSDAY.—Market again very quiet. East Lovell, Eberhardt, and West Frances flatter. East Lovell, 11½ to 12½; Eberhardt, 36 to 37; West Frances, 50 to 60; Utah, 16 to 17; Pacific, 5½ to 5¾; Carn Brea, 140 to 145; South Condurrow, 9½ to 10; Grenville, 6½ to 7½; West Chiverton, 10 to 11; West Caradon, 2½ to 3; Tankerville, 16½ to 17.

FRIDAY.—The chief enquiry to-day has been for Carn Brea, West Frances, Pennerley, and Utah. West Chiverton flat at 10½, sellers. Carn Brea, 140 to 145; West Frances, 60 to 65; Pennerley, 3½ to 4½; Utah, 16 to 17; West Chiverton, 10 to 11; Bog, 2½ to 3; North Croft, 1½ to 1¾; Van Coussils, 1½ to 1½; West Bassett, 5 to 5½; Uney, 7½ to 8; Eberhardt, 36 to 37; Pacific, 4½ to 5½.

HOLLOWAY'S PILLS—A SURE REMEDY FOR FEMALE COMPLAINTS.—These invaluable pills may be taken by females of all ages who are suffering from any disorder or irregularity of the system, or from those distressing diseases which frequently occur (from inattention) at the turn of life. They are so mild, though certain, that the most delicate female may take them with perfect safety. These pills purify the blood, regulate the secretions, and give tone to the stomach. The constitution is thus permanently benefited, and the patient has not only got rid of a disease, but is better than ever, and has acquired that additional strength and vitality which are the best securities against a return of the same complaint.

MINING IN SHROPSHIRE.

The success which has attended the development of the Tankerville, West Tankerville, Roman Gravel, and other mines in Shropshire and the neighbouring counties has naturally caused all enterprises for working mines in the district to receive a large amount of attention from the public. The mineral wealth of the district was recognised even by the Romans, who regarded the Gravel Mine as about the centre of one of the greatest mining districts in the island. The remains of Roman mines and Roman roads in this part of the country are so numerous as even to attract the attention of non-professional visitors, and miners readily appreciate the intelligence that must have been possessed by the Romans, who made so judicious a selection of a district for carrying on mining operations in. The circumstance of the veins of lead being sufficiently numerous and extensive to induce the Romans to operate so largely, might alone be received as abundant evidence of the enormous value of the mines; for it must be remembered that the Romans were at a great disadvantage in having to confine their operations to comparatively shallow depths, owing to their want of machinery for drawing the water, and of explosive agents for the removal of the mineral from the rocks in which it is embedded.

That ore usually increases in value as depth is attained is very generally admitted, so that the almost innumerable shallow workings of the Romans are regarded by modern miners as most valuable exploratory works, permitting of the complete development of the mines with a facility which could not otherwise be hoped for. With the application of gunpowder for blasting purposes, and the use of the various kinds of improved machinery, both in the shape of drawing and pumping engines, and of apparatus for crushing, dressing, and preparing the ore for market, it is not surprising that some of the recently formed mines in the district should have handsomely remunerated their shareholders, as an instance of which the Tankerville Company, which, although formed within a comparatively recent period, has already returned about one-fourth of the subscribed capital in dividends, whilst the prospects of endurance are such that the realisation of profits for generations is confidently anticipated. The West Tankerville, the Roman Gravel, the South Roman Gravel, and other mines in the county, although generally considered to be rich for lead, have not yet entered the Dividend List; yet the prices which the shares at present command in the market may be taken as some criterion of their value.

A company is now being formed for working another property in the county, occupying about 300 acres, and yielding lead, copper, and other minerals. The LLYNELYS LEAD AND COPPER MINING COMPANY, so called from the property being situated at Llynelys, near Oswestry, has been formed with a capital of £12,000, in shares of £1 each, and particular attention is directed to the convenient proximity of the mine to the Llynelys station on the Cambrian Railway system, and to the peculiar feature for the district that adit levels can be driven and the mines worked to a very considerable extent without the aid of steam power, thereby enabling the company to further test and develop the property at a very moderate expense. Capt. James Nancarrow considers the property of no small value, and where a vast amount of work can be done without the aid of steam power, and looking at the several favourable features which the property presents, the prospects are such as to warrant a vigorous prosecution, when he thinks a small outlay likely to bring it into a profitable position. Capt. John Lester feels confident that in going to a depth of 80 to 100 yards in this mineral ground they will find a large body of lead and copper ores. The geological formation being limestone offers an opportunity for obtaining stone for fluxing purposes, and for converting into lime.

The geological formation of the Llynelys Mine is described as precisely the same as the productive mines in Flintshire—limestone—and similar results may be expected in the working of this property. Very little has been done here by way of opening out the lodes, but in every instance where the lodes are opened on at surface they produce lead ore, and, from the present productiveness of the lodes, it only requires some two or three adit levels being driven on the course of the lodes to make this a profitable undertaking. One of the lodes is producing at the present time ½ ton of lead ore per fathom at a shallow depth; what will be realised as depth is attained time and proper working will tell. The same can be driven and stoped for about 30s. to 40s. per fathom. No costly machinery will be wanted to develop the same, and a small amount of capital is only required to work it effectually, as three adit levels can be driven from the eastern side of the hill at (say) 16, 28, and 40 fathoms on the course of the lodes, all producing lead ore. The same can be done on the north side of the hill on the copper lode, which forms junctions with other lodes passing through the sett.

GOLD MINING IN AUSTRALIA.

Melbourne, July 15.—For many years past there has been a gradual and steady falling off in the amount of the precious metal got from the gold fields of this colony. This decline is now arrested, and there cannot be a doubt that the shipments of Victorian gold from Melbourne this year will greatly exceed the amount of the shipments of the year 1870. From Bendigo and the Beechworth district, as well as from the Gipps Land gold fields, north and south (more especially from Stockyard Creek), the latest reports have announced very large returns to the miners. But at Sandhurst (Bendigo) one of our oldest gold fields—long since supposed to have been past its best, as early as 1852—the largest yields have been recently obtained, and from depths varying from 200 to 700 ft.

The following is from a recent number of the *Bendigo Advertiser*, the principal newspaper of the district:—

“The end of the half-year affords a fine opportunity to give some of the results of the work during that period on the Bendigo gold field. The half-year has been a very heavy one for what may be called dead work, a very large amount of money having been spent in erecting machinery and in paying off liabilities incurred in past years. But for this the dividends would have been much larger. The yield of gold during the past half-year was 117,227 ozs. 12 dwts. 2 grs., the approximate value of which is 499,972. 12s. The money paid in dividends was 143,438. 38s. 10d., and the amount of calls made 73,818. 8s. 8d., thus giving a total of dividends over calls of 69,619. 18s. 2d. This represents a very great increase on the dividends of 1870, and is suggestive that the list at the end of this half-year must show very favourable results. The total amount of money disbursed in dividends and calls was 217,257. 12s. 6d., which leaves 181,715. 19s. 6d. of the value of gold obtained to go to the working of the claims, or altogether devoted to that purpose the very large sum of 257,534. 8s. 2d. This proves that in some of our claims an enormous amount of work has been done lately in the erection of machinery, putting in permanent levels, &c., as in many of our paying mines the cost of working is only about from 25 to 30 per cent. The total amount of gold purchased by the banks in the Sandhurst district during the month of June was 30,416 ozs. 7 dwts. 16 grs., yielding the splendid weekly average of 704 ozs. 1 dw. 19 grs. This, however, does not represent the whole of the returns, as some of the owners of quartz claims, not worked by companies, have persistently declined to make public their returns, which, however, are known to be enormous.”

Simultaneously with the improved prospects of the mining interest in this colony, some amazingly rich quartz reefs have very recently been discovered at Shortland and Graham's Town, at the Thames gold field, in the Auckland district of New Zealand. The quartz from the claim of the Caledonia Company has in large quantities proved so unprecedently rich as to enable the company to divide during the last few months between 300,000 and 400,000 in dividends. The neighbouring claims have, consequently, gone up rapidly in the price of their shares, and a scrip-fever epidemic now rages in Auckland.

As an instance of what is called “luck,” a man in Melbourne is pointed at as being in the receipt of some 30000. a fortnight from the New Zealand Caledonia Mine; and another man, an affluent squatter before he meddled with mining, has for many months been pocketing from the “Long Tunnel,” in Gipps Land, at the rate of 30,000. a year on an original investment of some 20000.

GREAT WESTERN SILVER MINING COMPANY (Nevada).—The first general meeting of shareholders is convened for the 19th inst., and the report which will then be submitted is of a very satisfactory character. In the short time the company has been in existence all preliminaries connected with the transfer of the property have been disposed of, the company's title recorded and certified by the State official, and mining operations not only commenced, but so far advanced as to enable the manager (Mr. Ellery) to congratulate the directors upon the prospect of a first remittance of silver being made within a month. Two shafts are at full work, and the following assays will show the rich quality of the ore that is now being raised:—

“Assay Office of Thomas Cahill and Brothers, Hamilton, Nevada, Aug. 4.—Certificate of assay of ore from the Great Western Silver Mining Company, de-

posited by Dr. Horatio Nelson:—359.64 ozs. per ton. Value of silver per ton, \$161 94c.—Aug. 7: Assay of ore from new shaft, the first that was brought to surface:—Value for silver per ton, \$111 51c.”

The small amount of the company's capital is a great feature, especially when the above facts, together with the extraordinary results which are being obtained from the district, are borne in mind.

Original Correspondence.

MINING BY MACHINERY—THE BURLEIGH DRILL.

SIR.—Since the drill has been at work here we have had to do a lot of necessary work in the shaft, such as putting in a set of bearings to carry the lift of pumps, and a new slide, &c., to the lift, and a run of new zinc air-pipes from the bottom to the surface, &c., and, as might be expected with a new machine, it has taken some time to get the men accustomed to sit and work the machine, but when we get the blocks, chain, &c., mentioned in last week's Journal, all in proper working order, I believe that the drill will far exceed any thing that can be done with manual labour.

As soon as we get everything in full working order I shall be able to give you all particulars of the capabilities of the drill, which I shall be glad to do for the information of your numerous readers and the benefit of mining generally.

WILLIAM WASLEY,
Evening, near Mold, Sept. 7.

ON HOME AND FOREIGN INVESTMENTS.

SIR.—Having recently been engaged in a series of interesting researches, I have asked and obtained permission to publish them, and trust they will be considered of sufficient interest to secure insertion in your valuable Journal. My field of operation, as you will perceive, is exceedingly extensive, and the record will naturally open out the question of comparative merits of home and foreign investments, especially when placed in juxtaposition with the able reports and strictures with which your paper abounds. I refer only to quality, leaving the questions of quantity, management, surveillance, and other commercial details to those whose opportunities of testing such matters far transcend my own.

Amongst home produce much encouragement is offered for an active prosecution of mining in Ireland, from the fact of the discovery of gold in districts where its existence was never dreamt of, and where its association with copper ore, and that, too, of an exceedingly rich quality, affords sufficient evidence of profit without reference to the noble metal itself. As a silver-lead producing country, Wales would appear to maintain its position.

Amongst other equally rich samples, I have just completed three for the Burrow and Butson Mining Company, with the following results:—

No. 1.—Lead.....	61.2 per cent.	Silver... 13 ozs. 17 dwts. 6 grs. per ton.
No. 2.—“.....	70.3 “	“ 32 “ 16 “
No. 3.—“.....	72.0 “	“ 27 “ 6 “

Whilst from the Nanty Brain three specimens yielded respectively:

No. 1.—Lead.....	74.0 per cent.	Silver... 13 ozs. 11 dwts. 3 grs. per ton.
No. 2.—“.....	82.0 “	“ 8 “ 13 “
No. 3.—“.....	62.2 “	“ 16 “ 18 “

The Harmony and Montague Mine appears fully to bear out the character it has earned as rich tin property. Two specimens, whose only indication of being metalliferous, upon a cursory examination, was their specific gravity, respectively yielded 45.1 and 40.2 per cent. of tin. If such be the result of a superficial sifting, it can be readily imagined that at depth the metal will be discovered of a quality justifying the sanguine expectations of the proprietary.

With respect to foreign produce, I have been afforded opportunities of examining several of great interest, and diffused over a considerable area; thus, from Salt Lake City, Utah, were seven samples, six being argentiferous galena, the remaining one an ochreous goossan. I give them in the order of examination:—

No. 1.—Lead.....	73.3 per cent.	Silver... 23 ozs. 13 dwts. 6 grs. per ton.
No. 2.—“.....	75.5 “	“ 26 “ 16 “
No. 3.—“.....	60.1 “	“ 25 “ 9 “
No. 4.—“.....	65.5 “	“ 30 “ 4 “
No. 5.—“.....	72.0 “	“ 21 “ 7 “
No. 6.—“.....	75.5 “	“ 42 “ 15 “
No. 7.—Goossan.	“	“ 1 “ 19 “

Colorado has furnished specimens worthy of its character; thus, from the Snowdrift Mining Company, assays of argentiferous galena gave:—

No. 1.—Lead.....	70.2 per cent.	Silver 1487 ozs. 18 dwts. 22 grs. per ton.
No. 2.—“.....	74.2 “	“ 1407 “ 18 “
No. 3.—“.....	61.5 “	“ 1950 “ 0 “

Whilst a considerable bulk of the ore (including gangue), upon being sold in London, absolutely realised at the rate of 41 per cent. of lead, and 1144 ozs. per ton of silver. For the New Rosario Mine, Mexico, I assayed eight samples of silver ore, and obtained of that metal respectively 13 ozs. 1 dw. 8 grs. (this was the goossan), 470 ozs., 1701 ozs., 586 ozs., 59 ozs., 1955 ozs., 1568 ozs., 849 ozs. These I give simply on account, for the sake of perspicuity.

W. WHITE,
Laboratory and Assay Office, 25, Finsbury-place, London, Sept. 7.

CORNISH MINING.

WHAT IS THE COST-BOOK PRINCIPLE?

CARN BREA AND EAST POOL MINES.—Both these mines are of long-dated growth, and commenced paying dividends about 35 years ago. Carn Brea proved rapid in development, although powerful pumping machinery was required to drain the old workings of water. Yet with a subscription of 15,000l. capital, the yield paid for an extensive field of machinery and plant, and allowed of increased dividends up to 20,000l. and even 24,000l. annually, and the shares, 15s. per share, rose to over 200l. each. In the aggregate dividends of 280,500l. were declared up to September, 1861, and 11,000l. up to 1864, after which they ceased altogether until Aug. 30 last. East Pool Mine first consisted of 128 shares, and when 5l. was paid the shares sold at 52s. 6d. each. The dividends for 25 years, up to September, 1861, amounted to 305l. per share, and the price at that date was 400l., although no dividend had been declared for the past three years, and the called-up capital had increased from 5l. to 24l. 5s. per share (say, 2496l. additional). The paid-up capital is about the same now—9s. 9d. per 6400th share, quoted 13l. to 13l. 5s., or about 84,000l. for the entire, an advance of 32,500l. over the last 10 years, and during which period dividends of 26,560l. have been declared, equal to 2650l. annually, or 6½ per cent. on the market price in September, 1861, and 3l. 3s. per cent. on the price of this day. The last dividend was 5s. for the quarter, hence the mine is selling at rather over 13 years' purchase.

Referring, again, to Carn Brea Mine, calls of 20,000l. have been made since the suspension of dividends in 1864, and after much disappointment in the results, shares sold for less than the cost of machinery and plant; yet in a short time, under a change of management, the property is re-invigorated, and again installed amongst our best dividend properties. The *West Briton* remarks:—

ECONOMY AT CARN BREA.—“An Old Adventurer” writes:—“You need not be surprised at Carn Brea Mines making profits after the following savings:—The man-engine used to burn 25 loads of coal per week, and is now doing the same work with 15 loads. Another engine used to burn 22 cwt. per day; it now burns 15 cwt., and can be made to do the same work on 10 cwt. per day. It now engines can save so much, what may not the whole do? You can rely on this statement; this saving has been going on for many months.”

The same authority further adds:—Carn Brea has absorbed chief attention within the last few days, and previous to the meeting, which was held yesterday (Wednesday), an almost frenzied anxiety to know what the dividend would be was manifested by the mail and speculators on the market, the number of whom, by the way, have increased considerably since the advent of prosperous times. The astute manager, however, succeeded admirably in keeping his secret, notwithstanding many attempts to “get at” him and it. Shares fluctuated considerably since last week, on Saturday the quotation advanced from 14s. to 15s. 10s.; on Monday it dropped back to 15s. 15s.; and yesterday morning shares changed hands at 14s. 10s. After the meeting was over, and it was known that instead of the expected 2l. dividend was resolved upon, a drop of 10l. per share took place at once, making the price 13s. to 14s.

Reverting back to East Pool Mine. The subjoined remarks are extracted from the columns of the *West Briton*:—“East Pool.—We have received a communication respecting the accounts of this mine. It will be remembered that, owing to the stoppage of Great South Tolgus, an adjoining mine, there was a very large increase of water at East Pool, and in order to keep this down a great additional outlay had to be made for engine and machinery. This could not be paid out of the revenue, but at the same time making the usual dividend; and the committee, in order to continue the dividends, placed the labour cost, &c., to a ‘suspense account,’ certainly a very novel proceeding; but after submitting the purport of the com-

Mining Correspondence.

BRITISH MINES.

ASSHINGTON.—Wm. Johns, William Tipton, Sept. 5: North and South Lode: At Gundry's shaft we have cut the 20 cross-cut, and commenced to drive south on its course; the portion cut is composed of a beautiful soft bluish, with a regular leader of lead ore—altogether a very kindly lode.—East Shaft: The lode at this shaft is still looking pretty well, and is worth 20 cwt. of lead ore per fathom. In the 20 east of shaft, we have reached the north and south lode, and where cut into 12 ft. wide, mixed up with copper, lead, and soft priam spar—a good looking lode. The three stops in back, west of shaft, are without alteration. We have made an attempt to take down the south part of the lode, where it is worth 40 cwt. of lead ore per fathom; but this part seems to be taking off in the side, with water issuing strongly from the same. We are most inclined to think this is a split from the main course; if so it is a good thing, but hope to say more about it in our next.—Brown's Shaft: The lode at this shaft is still looking pretty well, and is worth 20 cwt. of lead ore per fathom. The lode is still standing firm. The ground is easy for progress, and if it continues will soon communicate with the 20. There is no other change to notice elsewhere.

BEDFORD UNITED.—William Phillips, Sept. 7: Driving by the side of the lode is continued east and west at the 115. The lode in the 103 west is 2½ feet wide, producing 4½ tons of ore per fathom. The stop in the back of this level is yielding from 3 to 4 tons of ore per fathom. The stop in the back of this level is worth 2½ tons of ore per fathom. No lode has been taken down in the 90 west since last reported. The stop in the back of this level is yielding an average 4½ tons of ore per fathom. Driving is continued by the side of the lode in the 90 east. The lode in the winze sinking in this level is 2 ft. wide, producing 4 tons of ore per fathom. The stop in the back of this level is worth 2½ tons per fathom. We have not yet intersected the lode in the 75 east.—South Lode: We have again intersected what we consider to be the main lode in the 47 east, and have commenced driving upon it.

BLAEN CAELAN.—John Evans, Sept. 6: Settings for Sept. 3: Engine-shaft: Four men to drive the 21 west at 120s. per fathom. In a lode from 5 to 6 ft. wide, of a very promising character, producing lead, copper, and muddle, but not so much of the latter as before reported. I expect an improvement for lead will be the muddle dies out. Four men to drive the 20 east at 120s. per fathom. In the course of the same lode, and towards the dip of ore ground of the upper levels. Eight men to stop over the 10, east of shaft, at 45s. per fathom; this stop continues to produce fully 2 tons of lead ore per fathom. Four men to stop nearer shaft in the back of this level at 70s. per fathom; the lode here will produce about 15 cwt. per fathom. Six men to stop over the adit east of shaft, and cross-cut, at 45s. per fathom; the lode in this stop is producing 15 cwt. per fathom. Six men to stop 10 fms. further east, in the back of same level, at 45s. per fathom; the lode is producing 1 ton per fathom. The men belonging to the straight adit are employed for a few days in repairing the frame underground. Two men to open the adit cross-cut south of river, at 70s. per fathom. All the machinery is in good working order.

LOG.—Wm. Nancarrow, J. Lean, Sept. 6: The engine-shaft has been cleared and secured 8 fms. below the 70; as we approach the 80 we find the ground weaker, and the sides of the shaft fallen in, which makes it much larger than its proper size, consequently our progress in clearing for the last few days has been rather slow; after we reach the plat, which will be within the next 6 ft., we shall be able to get on much faster. To-morrow we purpose putting on another pump, and lowering the frame. We have commenced to clear up the footway winze leading from the 70 to the 80, and we are down a little over 2 fathoms. The lode in the 7, driving east, produces a little lead and blende; judging from its kindly appearance, and the change of ground coming in, we expect it to improve in the course of a few feet more driving.—Tribute: We have 10 pitches at work, chiefly in the back of the 70, at prices varying from 6s. to 7s. per ton for lead (less 20s. per ton for washing), and 20s. per ton for blende. The parcel of blende sold to Messrs. Vivian and Sons is now in course of delivery, and on Saturday next we shall sample 20 tons of lead. Our surface work progresses satisfactorily. We expect to have the roofs completed over the large boilers and the engine by the end of this month.

BIONFLOYD.—Thos. K. M. p. Sept. 6: Settings for September: No. 3 Shaft.—North Lode: This shaft is in regular course of sinking from the 81 to the 100 under contract, as stated in former reports; the part of the lode carried therein is composed of blue slate, intermixed with spar, spotted with lead. During the last month the 81 end west was opened on the south part of the lode 2 fathoms, which yielded fully 2½ tons of lead ore per fathom; the men are now stripping the north part, at 12s. per cubic fathom, and so far the lode is of equal value. Six men to stop under the 62, to the west of winze, at 45s. per fathom; the lode worth 2 tons of ore per cubic fathom. Six men to stop the lode to the west of the 62, to the west of the shaft, at 115s. per fathom; the lode is worth 2½ tons of ore per fathom, and the ground exceedingly hard for breaking. A tribute pitch is set to four men over the back of the 52, for two months, at 110s. per ton of clean dress ore. All other bargains are for the present suspended, and the men are employed on surface in order to get the new fls. installed, and the buildings, new water wheel, and the wire tramway erected down to Cambach farm-house, which will hereafter save us much cost in carriage of ore, and 20 ft. rise and fall of roadway.

BUDNICK CONSOLS.—John Rawlings, Sept. 5: The lode in the 23, driving east of engine shaft, is 2 ft. wide, composed of capel and spar, very promising for tin. In the 15, driving west of footway, the lode is split up in branches, and the ground is not so good for driving. The tribute pitches are yielding their usual quantity of tinstuff. The stamps are again at work.

CAE GYNON.—T. Hodge, Sept. 7: North Lode: In the 50, west end, on the north part, it is worth for lead 10 cwt. per fathom. The winze below this level is yielding saving work; the lode is large; we think the most productive part is in the side. In the 40, west end, the lode is yielding saving work. The stop in the bottom of the 40, west of winze, is 2½ ft. wide, and is worth 40 cwt. of lead ore per fathom. The stop east and west of the No. 2 winze, in the bottom of the 40, are turning out much as usual. Nothing has been met with in the cross-cut.—South Lode: In the 40, west end, the lode is worth 6s. per fathom for blende and lead. Two stops in the back of the 20 are worth together 4 tons of blende per fathom, with a mixture of lead. In the 10, south cross-cut, I think we have reached the wall of the lode, but the ground is hard; it will take a few days to square the end before we shall be able to stop at the lode. We have two men on tribute; this pitch will yield 2 tons of blende per fathom.

CAFARTHIA.—Capt. Williams, Sept. 5: The driving and stopping the ore is proceeded with as fast as we can by six men, and I am glad to be able to state that the ground yields over 2 tons of ore per fathom. The new cross-cut south of the adit level will be commenced driving to-day, and also the adit level west to go under the ore visible on surface. The 15, going east of the engine-shaft, is being driven by four men, the lode last week yielding kindly spar, gossan, and a little blende occasionally.

CAPL CONWALL.—R. Pryor, J. Davey, Sept. 5: Saturday last being our pay and setting day, the following bargains were made: The 100 to drive east of cross-cut, by two men, at 3s. 10s. per fathom; the lode here is 2½ ft. wide, composed of muddle, peach, and spar, and letting out an increased quantity of water, which is a favourable indication. The 100 to drive west of cross-cut, by two men, at 4s. per fathom; the lode in this end has a very kindly appearance, which is producing some fine stones of muddle. The 100 cross-cut to drive north of the engine-shaft, by four men, at 5s. per fathom; the ground in this cross-cut is without much alteration to notice. Our pay and setting passed off very satisfactorily.

CARN CAMBORNE.—Henry Bennett, Sept. 2: The 83½ fms. Level: The east end on the south lode is worth 10s. per fathom for tin, and the west end 11s. per fathom. The two intermediate drivings upon this lode are now united—the eastern end from the western cross-cut, and the western driving from the eastern cross-cut. A winze is being sunk below the level, in which the lode is 6 ft. wide, worth 100s. per fathom for copper and tin. The north lode west is worth 6s. per fathom for copper.—The 70 fms. Level: The south lode west is worth 10s. per fathom for tin. In the winze sinking below the level the lode is 6 ft. wide, worth 12s. per fathom for tin. A stop in the bottom of the level, to the north lode, is worth 12s. per fathom for copper and tin.—The 60 fms. Level: A stop in the bottom of level, east of winze, is worth 13s. per fathom for tin; and another, west of winze, 14s. per fathom.—The 50 fms. Level: The east end, on north lode, is worth 10s. per fathom for tin. The winze sinking below the level worth 25s. per fathom for copper and tin; and a stop in back of level, on the south lode, east of shaft, worth 12s. per fathom for copper.—The 40 fms. Level: The north lode west is worth 8s. per fathom for tin.

CASTLE GATE.—T. Parkyn: Brenton's lode is still 2 ft. wide, containing good work for tin, and we are driving south of Brenton's lode to intersect the south lode mentioned in former reports. I expect to reach one of the south lodes in a day or two, when I will inform you of the result at once. In the driveage south from Brenton's lode we have cut into several branches of tin, and they are all dipping or dropping into Brenton's lode, and, I think, will make a large deposit of tin a few fathoms below the adit, which is only 5 fathoms from the surface. I will give you a full report next week.

CATHEDRAL.—J. Mitchell, Sept. 7: Colonel's shaft we are obliged to suspend until we get our engine to work, water being too much to keep with horses. Houston's shaft the lode still maintains its size, and is producing rich stone of tin. We hope to finish clearing the adit very soon, when we shall be in a position to sink Doctor's shaft, and make good returns of tin.

CHIVERTON MOOR.—G. E. Tremayne, Sept. 2: The following is a copy of our setting:—The 116 level to drive west, by four men and four boys, at 3s. 15s. per fathom; lode 12 in. wide, of a kindly appearance. The 103 fathoms level to drive west, by four men and four boys, at 3s. 10s. per fathom; lode presenting a very kindly appearance, with a great increase of water. A rise in the back of the 95 fms. level, by four men, at 2s. 5s. per fathom; lode worth 7 cwt. of lead per fathom. A rise in the back of the 85 fms. level, by six men, at 2s. 10s. per fathom; lode in a silty ground. A stop in the back of the 95 fms. level, by six men, at 2s. 10s. per fathom; lode worth 10 cwt. of lead per fathom. A stop in the back of the 85 fms. level, by four men, at 2s. 5s. per fathom; lode worth 7 cwt. of lead per fathom. To cut open and secure the 85 fms. level, by six men, at 1s. 10s. per fathom. We have also set three pitches in the back of the 75 fms. level west, to eight men, at 3s. per fathom each.

CUNNOCKREE.—Wm. Jones, Sept. 6: In the 18 fms. level, middle and south stops, the work continues without alteration.—Field's Shaft: In the 18 and 25 we are breaking very fine ore in each of the levels of this shaft.—Tracy's Shaft: The stop in the 25 are yielding well for the number of hands employed.—Barry's Shaft: The men are in the 25 hard at work on the grey ore; we have this week drawn a good pile of stone. In the 35, east of engine-shaft, the ore taken from this level is of a high class, and the yield continues as well as we could wish. In the 45, in driving, the lode has within the last few days become of a much more coppery character. In the 55 the shaftmen are making good progress with the western driveage.—Kilnacree Silver Blende Ore: We have now resumed sinking; the ore of the last drawing has decidedly improved.

CRENNEL AND WHEEL ABRAHAM UNITED.—William Kite, William J. Paul, Sept. 4: Sturt's Engine-Shaft: The summen have finished cutting the bob-pit in the 180 fms. level, and are now preparing to send down the bob, &c. In the 205 fms. level the lode is disordered, and will now produce 2 tons of good copper per fathom.—Crennel Shaft: In the 120 east, the lode is 2 ft. wide, spotted with tin and copper, but nothing to value. In the rise in the

back of the 130 fms. level the lode is 3½ ft. wide, and now worth from 15s. to 20s. per fathom for tin and copper ore. At Pelly's engine-shaft the lode is 2 ft. wide, producing tin and copper ore to dress, worth 10s. per fathom for the length of the shaft (12 ft.). The lode is very improving, which is an important feature.—Blewitt's Shaft: In the rise above the 200 fms. level, west of shaft, the lode is 6 ft. wide, producing 2 tons of copper ore per fathom. There is no alteration in any other of our outwork operations since the last report. The masons are making good progress in the building of the man-engine-house, and we are pushing on the casing and dividing of Wolf's shaft with all speed.

CUDDEA.—F. Puckey, H. Harvey, Sept. 6: In the winze sinking below the 142, on the north lode, from Walker's shaft, the south or tin part of the lode is about 5 ft. wide, and presenting a very promising appearance, composed of quartz and peach, and containing a great deal of tin, worth fully 25s. per fms. In the rise in back of the same level the lode is 6 ft. wide, has the same kindly appearance, and producing saving work for tin. In the winze sinking below the 142 fathom level, west of the shaft, on the south part of the lode, no lode has been taken down for the month, but we shall begin to take it down in the early part of next week. The lodes in the different stops are still very large, and without alteration in value since last reported. At the steam winze-engine we have taken out the old boiler and put in the other in its place. We hope to get ready to work again by Friday next. All our operations are being pushed on as fast as possible.

DOLAN.—J. Davis, Sept. 6: The lode in the adit level is 3 feet wide, composed of gossan, with carbonate of lead and strings of lead ore; the end is coming very wet, and I expect a further improvement shortly.

DRAKE WALLS.—Thos. Gregory, Sept. 7: The branches in the 60 cross-cut south are still holding good as we open on their course, and are laying open good tin ground for stops. We have to-day cut into some good tin branches in driving the 65 cross-cut south, so far as seen worth 11s. per fathom; those branches have not been seen west of the cross-course throughout the western part of the mine, consequently other cross-cuts will be opened as quick as possible for proof of the same. We have no important change in any other part of the mine.

EAST CARADON.—Thos. Gregory, Sept. 7: The 130 cross-cut south is still in hard labour. In the 115 cross-cut south the ground continues granite, and letting out water, but a little harder for driving. In the 115 east, on the south part of the caunter, the lode is 4 ft. wide, producing stones of copper ore.—Secombe's Shaft: In the 90 cross-cut south the ground is elvan, and favourable for progress. In the 90 east the lode is 2 ft. wide, composed of quartz and gossan, spotted with muddle and copper ore. In the 90 west the lode is 2 ft. wide, of a similar character as in the eastern end. In the 80 east the lode is 1½ ft. wide, chiefly quartz. In the 80 west, on the south part, the lode is 2 feet wide, composed of cherty quartz, with a little muddle and copper ore. The 50 west, on No. 2 lode, is poor. In the 50 east, on the east lode, the lode is 1 foot wide, composed of quartz and peach, with a little muddle. In the 60 west the lode is of the same size and character as in the eastern end.

EAST RHYDTALOG.—James Dunkin, Sept. 6: The deep level on Rhydtalog lode continues as for some time past, producing good gossan. In the deep level on new lode the lode is large and very fine looking, producing good gossan, carbonate of lime, and occasional stones of lead.

EAST WHEEL GRENVILLE.—G. N. Odgers, W. Bennetts, Sept. 2: The men are making good progress with the driving of the 120 cross-cut north. The lode in the 95 east is 1½ ft. wide, producing stones of copper ore, and moderate quantities of lead, judging from past experience, will shortly be met with. The lode in the 95 east is 1½ ft. wide, producing stones of copper ore, and moderate quantities of lead, judging from past experience, will shortly be met with. The lode in the 95 east is 1½ ft. wide, producing stones of copper ore, and moderate quantities of lead, judging from past experience, will shortly be met with.

EAST WHEEL SETON.—J. Vivian and Son, Henry Arthur, Sept. 7: Cartwright's Shaft: We are making good progress in the sinking of this shaft, being now about 5 fms. below the 31 fms. level, where the lode maintains its favourable appearance, and is producing more than we have ever seen in it before; this is generally regarded as a good indication. The sink below the 31 fms. level the lode has improved, being 3½ ft. wide, and composed of quartz, muddle, and copper ore. The tribute pitches and other parts of the mine are without alteration since our last report.

FRANCO CONSOLS.—W. Dudge, Sept. 7: We have been driving east of Sutton's shaft, where the lode has produced 9 tons of copper ore, 3 tons of which are a good quality black ore. We hope to have something good here; the end is looking kindly for improvement.

GAWTON COPPER.—G. Rowe, G. Rowe, Jun., Sept. 2: The ground in the 15, east from King's engine-shaft, on the north side of the lode, is of a good character, and is showing a very good prospect, and producing 8 tons of good quality ore per fathom. The part of the lode carried in the 82 east is 3 ft. wide, principally composed of capel, spar, and muddle, intermixed with ore. The lode in the stop in the back of the 82 is worth 2 tons of ore per fathom. The lode in the 71 east is 6 ft. wide, principally hard capel and spar, intermixed with muddle and ore. The lode in the winze sinking below the 70, is worth 9 tons of ore per fathom. The lode in the stop in the bottom of the 70, east of Williams's winze, is worth 6 tons of ore per fathom. All other points of interest in the mine are without change since our last report.

GORSEDD AND CELYN LEVEL.—Sept. 7: The mine is looking better than I have yet seen it. In working the two stops we find the produce increasing, and have drawn from No. 1 to-day some very rich stuff, which looks well for deeper working. Good progress made in dressing.

GRAT FIRON FOWNOG.—William Wasley, Sept. 7: I have had a set of bearings put in the shaft to carry the lift of pumps, a new slide, &c., up to the pump, and arm of new zinc air-pipes put in from the bottom to the top of the shaft, so that things are now in good working order; and I am glad to say that, from the experience, I think we shall have to sink but very little to get into a better ground for sinking. The engineers are getting on well with erecting the new engine.

GRAT RETALLACK.—G. R. Odgers, J. Harris, Sept. 2: We have to-day set the adit cross-cut to drive through the lode, by six men, at 9s. per fathom; we have already driven it 28 ft. on the lode, which is composed of hard capels, with a little muddle and Jack, but we have not yet reached the south wall. The end continues to let out a quantity of water, which has thoroughly drained the Duchy and Peru adit, and the water in the old mine has gone down fully 2 fms. The lode in the 10, east of shaft, is showing a very good prospect, and producing 8 tons of good quality ore per fathom. The part of the lode carried in the 82 east is 3 ft. wide, principally composed of capel, spar, and muddle, intermixed with ore. The lode in the stop in the back of the 82 is worth 2 tons of ore per fathom. The lode in the 71 east is 6 ft. wide, principally hard capel and spar, intermixed with muddle and ore. The lode in the winze sinking below the 70, is worth 9 tons of ore per fathom. The lode in the stop in the bottom of the 70, east of Williams's winze, is worth 6 tons of ore per fathom. All other points of interest in the mine are without change since our last report.

GRAT ROCK.—John Kemp, Sept. 7: We are now making good progress with the sinking of the engine-shaft. I shall, if possible, make this a 15 fms. level. The lode in the 25 level, which is 15 fms. below the 100 fms. level, is showing a very good prospect, and producing 8 tons of good quality ore per fathom. The part of the lode carried in the 82 east is 3 ft. wide, principally composed of capel, spar, and muddle, intermixed with ore. The lode in the stop in the back of the 82 is worth 2 tons of ore per fathom. The lode in the 71 east is 6 ft. wide, principally hard capel and spar, intermixed with muddle and ore. The lode in the winze sinking below the 70, is worth 9 tons of ore per fathom. The lode in the stop in the bottom of the 70, east of Williams's winze, is worth 6 tons of ore per fathom. All other points of interest in the mine are without change since our last report.

GRAT WEST CHIVERTON.—D. R. Suckland, Sept. 6: No. 3 lode is now working big, composed of flacon, muddle, and fine lead, thinly disseminated through the flacon. All the lode and the foot-wall side of the country is in blue granite. The lode in the 10, east of shaft, is showing a very good prospect, and producing 8 tons of good quality ore per fathom. The part of the lode carried in the 82 east is 3 ft. wide, principally composed of capel, spar, and muddle, intermixed with ore. The lode in the stop in the back of the 82 is worth 2 tons of ore per fathom. The lode in the 71 east is 6 ft. wide, principally hard capel and spar, intermixed with muddle and ore. The lode in the winze sinking below the 70, is worth 9 tons of ore per fathom. The lode in the stop in the bottom of the 70, east of Williams's winze, is worth 6 tons of ore per fathom. All other points of interest in the mine are without change since our last report.

GWYDYR PARK CONSOLS.—W. Smyth, Sept. 5: Tynwill Mine: Since our last report I have put the men to take another stop in the bottom of the 8; this stop was poor to begin with, but has gradually improved, and is now worth its former value. I have also put the men to stop a piece of ground in the bottom of the 15, where it is showing good lead, but am not yet able to say its value. I have been disappointed in not having yet got the crusher put in. The drawing gear is working well, and we are getting up the stuff as fast as possible. There is no change in Fuchel's deep adit since last reported.

HOWARD (Lead).—W. V. Williams, Sept. 7: The miners are making good progress in sinking the engine-shaft. We have just now discovered an old level made by labourers at some very distant period; however, in the back of said level there are two small branches rich for lead, in the spar part of the lode, and we have broken in there some very good specimens of lead. We are also broken back from the lode during the week. In our sinking by the end of another week shall be in a position to give more details respecting the old miners' level, character of the lodes, &c.

HINGTON DOWN CONSOLS.—James Richards, Sept. 7: There is no alteration in any part of the mine since last week's report. A full report of the workings during the past four months will be forwarded in time for the meeting on Tuesday next.

KNOTT. Sept. 7: We are making fair progress in clearing the 20 level adit, but still in crushed ground, daily hoping to get through the same.

LEEDS AND ST. AUBYN.—John Curtis, Sept. 6: Wilson's engine-shaft is 9 fms. 3 ft. below the 20; the lode is 18 in. wide, worth 15s. per fathom. In the 20 west the lode is 12 in. wide, worth 3s. per fathom. The stop in the back of this level are worth 4s. per fathom. In the 20 east the lode is 20 in. wide, worth 2s. 10s. per fathom. The stop in the back of this level is worth 3s. per fathom. In the 10, east of Kendall's flat-roof shaft, the lode is 2 ft. wide, worth 2s. 10s. per fathom. In the stop in the back of this level the lode is 2½ ft. wide, worth 3s. per fathom. I have also put the men to stop a piece of ground in the bottom of the 15, where it is showing good lead, but am not yet able to say its value. I have been disappointed in not having yet got the crusher put in. The drawing gear is working well, and we are getting up the stuff as fast as possible. There is no change in Fuchel's deep adit since last reported.

MOUNT PLEASANT.—William Wasley, Sept. 7: The men are making fair progress with sinking Bright's shaft, considering the hardness of the ground. We are not troubled with water now, and I hope we shall be able to get to the heading of the flat before much weather sets in, as we should then be right.

NEW GREAT CONSOLS.—R. Pryor, John V. Thomas, Henry Vial, Sept. 5: No change has taken place in our underground department during the past week, calling for remark. The stops are looking very well, and continue to produce large quantities of tinstuff of the usual quality. Our surface work is also progressing satisfactorily, and we expect to have No. 5 calender completed and at work in about three weeks' time. We are getting on as fast as possible with the dressing of a parcel of tin against Friday.

NEW DALE.—R. Nines, Sept. 5: The 75 north has been driven 6 ft.; altogether 22 fms. 2 ft. 6 in., through vein ground. The 75 north-west has been driven

about 5 ft.; altogether 16 ft. The character of the vein is without much alteration, except containing rather more spar. If no further alteration takes place after a short distance further, I shall propose to suspend the driving here for a time, and put these men to drive north on the eastern part of the vein. The new pipe, on Johnson's lode, has again been split with a rider, but there is every prospect of its turning out a valuable vein. Holly Bank adit level has been driven 3 ft.; altogether 58 fms. 2 ft. 6 in.; the ground here continues very hard and difficult to cut.

NEW PEMROKE.—Francis Puckey, John Puckey, Sept. 4: The engine-shaft is sunk 6 fms. below the 9; the lode in the bottom of the shaft is divided by a horse of 1½ fms.; the south part of the lode is 1½ ft. wide, producing some good work for tin, and worth 16s. per fathom; the north part is composed of quartz and iron, but at present poor for tin. In the 90 end, west of the shaft, the lode is 12 ft. wide, worth 10s. per fathom. In the stop in the back of the same level, behind the end, the lode is 2 ft. wide, worth 8s. per fathom. In the 90 end, east of the shaft, the lode is 8 ft. wide, worth 18s. per fathom. In the stop in the back of the same level, west of the winze, the lode is 3½ ft. wide, composed of soft peach and quartz, yielding good work for tin, and worth 35s. per fathom. In the stop east of the winze the lode is 2½ ft. wide, worth 18s. per fathom. In the stop in the back of the 75, west of the shaft, the lode is 2 ft. wide, worth 6s. per fathom. In the stop in the back of the same level, west of Peter's rise, the lode is 3 ft. wide, worth 10s. per fathom. The lode in the stop, east of the rise, is 3 ft. wide, worth for tin and copper 12s. per fathom. In the stop further east, the lode is 3½ ft. wide, worth for tin and copper 14s. per fathom. In the stop behind the end, and west of the cross-course, the lode is 2½ ft. wide, worth for tin and copper 12s. per fathom, and looking promising for further improvement. In the 75 cross-cut driving south, east of the cross-course, the ground is favourable for progress. In the stop in the back of the 68, east of Martin's rise, the lode is 2 ft. wide, worth 10s. per fathom. In the stop in the back of the 68, west of the cross-course, the lode is 2½ ft. wide, worth 8s. per fathom. The average price for the stop in the lode throughout the mine is 27s. 8s. per fathom. In the western part of the mine we have dropped the pitwork at Edgemoor's shaft, and drawn the water from the 50, and are now engaged in clearing a run in the north cross-cut at that level.

NEW WHEEL CHALLOTTE.—J. Tonkin, Sept. 2: In the engine-shaft the men are still driving south; we are now in 15 ft. 6 in., and I believe are near the lode, as the end has become very wet in the last few days. There is no change to report in the copper lode. In the 30 cross-cut north we have driven through a small branch, which is rich for tin and grey and black copper ore; the lode in this branch is 2½ ft. wide, and cracks in the branch are filled with chips of malleable copper; this branch at the surface is about 4 fathoms south of the lode, and if the lode and the branch keep the same underlie to this level we shall cut the lode in about a month from this time, when we hope to find some thing good.

NEW WHEEL TOWAN.—Richard Pryor, Sept. 6: No change worthy of notice has taken place in this mine during the past week. Friday next being our pay and setting a full report shall be sent you.

NORTH CROFT.—Joseph Vivian and Son, William Thomas, Sept. 7: The several points of operation are without any change which we can notice since last week's report.

NORTH DOWNS.—J. Williams, Sept. 4: We sold a parcel of ore on Thursday last, which realised 133s. 14s. 3d. The engine and pitwork are working very well, and the water in fork.

NORTH KINGSTON.—W. Metherell, Sept. 7: The lode in the adit end leader is 2½ ft. wide, impregnated with squats of yellow and black oxide of copper, spotted with silver-lead throughout, with beautiful white quartz, and very rich gossan—a splendid lode. George's shaft is going down rapidly, now 6 fathoms below the adit, being in good mineralised blue killas, full of white priam and quartz.

NORTH LOVELL.—Sept. 2: The shaft is now 6 fms. 3 ft. below the 22, sinking by nine men, at 32s. per fathom; lode 10 in. wide, stamping work. The lode is not rich in the shaft, and is looking highly promising. The lode in the 22 west has improved in size and quality, and is 2 ft. wide, the leader part being 1 ft. wide, and better than I have ever seen it before. Having only one shaft the air is too tight to work successfully in the 22. I have, therefore, put a pair of men to sink a winze in the bottom of the 12, west of the shaft. This winze gives us good ventilation, and is open to the bottom of the 22, on Carver's stoping. We hope to arrange about the stream of water for the stamps on Monday.

NORTH POOL.—Sept. 7: Ballarat shaft is now 11½ fms. below the 23. The lode has the same favourable indications, composed of quartz, blende, and copper ore.

OLD BATHOLAS.—Arthur Walters, Sept. 7: We have three men fixing levers for drop-lift, and sundry work in connection with pumping out of the engine-shaft. Three men are clearing deep adit, and we expect to get into the Big Spar lode and explore the south end of ground in the course of another week. We are now ready for the engine, and I have written to the makers on the subject. Old and Smith's shaft are being driven.

OLD BATHOLAS.—W. Hancock, Sept. 7: Engine-shaft: The water in the fork at the 70, and the shaftmen will have completed cutting it down, drilling and casing it to this level, by the early part of next week. We shall then clear the stuff and old timber out, as well as make preparations to clear the shaft below; this will be done as speedily as possible. The debris has been cleared out to the end of the 40 fms. level south; the last 5 fathoms has been driven by the side of the lode, which we are now stripping down preparatory to continuing driving the end; the lode here is 2½ ft. wide, composed of capel, spar, white iron, and good silver-lead work—a very kindly lode; we are looking forward to great many fathoms of ore ground driven through in this level, and a great deal of the backs taken away. A sink has also been made in the bottom for about 3 fathoms in length, and 4 feet deep, which also produces good lead work, but in neither of these places have we yet done sufficient to properly ascertain their respective values per fathom. In the 20 fms. level south the lode is 4½ ft. wide, worth for silver-lead, blende, and silver ores 11s. per fathom. The rise in the back behind this end is worth 16s. per fathom; the ground in both places is of a good character, and is showing a very good prospect, and producing 8 tons of good quality ore per fathom. The part of the lode carried in the 82 east is 3 ft. wide, principally composed of capel, spar, and muddle, intermixed with ore. The lode in the stop in the back of the 82 is worth 2 tons of ore per fathom. The lode in the 71 east is 6 ft. wide, principally hard capel and spar, intermixed with muddle and ore. The lode in the winze sinking below the 70, is worth 9 tons of ore per fathom. The lode in the stop in the bottom of the 70, east of Williams's winze, is worth 6 tons of ore per fathom. All other points of interest in the mine are without change since our last report.

PARYS.—T. Mitchell, Sept. 7: I am pleased to say that the 100 east on S.B. course continues to yield 2 tons of good copper ore per fathom, and the lode looks kindly. The 100 cross-cut south is mixed with sulphur, spotted throughout with copper ore. No change worthy of notice in the 90 west; the ground is still hard for driving. The lode in the 80 east, in Carreg-y-doll, is hard and yielding 3 tons of ore per fathom. The 80 east, in Carreg-y-doll, is hard and yielding 3 tons of ore per fathom. The 80 east, in Carreg-y-doll, is hard and yielding 3 tons of ore per fathom.

PENNY-DREA UNITED.—W. Treagay, J. Thomas, Sept. 2: Sam's: All the boilers of the pumping-engine have been very troublesome through the week, each alternately having had to undergo repairs, which has prevented our working in the bottom level. The lode in the 140 east produces a little tin, but not to value. The lode in the 140 west is worth 15s. per fathom. In the stop in the bottom of this level the lode produces 10 cwt. of black tin per cubic fathom of tin. The lode in the 68 east is 10 in. wide, and is showing a very good prospect, and producing 8 tons of good quality ore per fathom. The part of the lode carried in the 82 east is 3 ft. wide, principally composed of capel, spar, and muddle, intermixed with ore. The lode in the stop in the back of the 82 is worth 2 tons of ore per fathom. The lode in the 71 east is 6 ft. wide, principally hard capel and spar, intermixed with muddle and ore. The lode in the winze sinking below the 70, is worth 9 tons of ore per fathom. The lode in the stop in the bottom of the 70, east of Williams's winze, is worth 6 tons of ore per fathom. All other points of interest in the mine are without change since our last report.

PENNY-DREA UNITED.—W. Treagay, J. Thomas, Sept. 2: Sam's: All the boilers of the pumping-engine have been very troublesome through the week, each alternately having had to undergo repairs, which has prevented our working in the bottom level. The lode in the 140 east produces a little tin, but not to value. The lode in the 140 west is worth 15s. per fathom. In the stop in the bottom of this level the lode produces 10 cwt. of black tin per cubic fathom of tin. The lode in the 68 east is 10 in. wide, and is showing a very good prospect, and producing 8 tons of good quality ore per fathom. The part of the lode carried in the 82 east is 3 ft. wide, principally composed of capel, spar,

worked away from this shaft below the adit evidently for tin, of which we already see some, and expect to see more when these workings are cleared out. The principal lode seen is south of the engine-shaft, but underlies towards it. There are two stopes on this lode further east, about 90 fathoms apart. The east shaft is sinking by six men, at 61 per fathom; the lode is carried for 5 ft. wide, which is worth 151 per fathom, but no south wall is yet seen. The west shaft has yielded good tin stuff, but the lode is now in the bottom disordered by elvan; four men are here driving eastward for ventilation. There is a cross cut from the engine-shaft driving towards this lode by two men, at 90 per fathom, and may have 20 fathoms more to reach it. There are two men driving west on a north lode, which contains a little tin, and there is tin in other lodes and branches near the sea—four men are clearing for the foundation of engine-house, &c., at 61 per fathom, but the sand is rather deep. In addition to the foregoing there are men quarrying and spalling. Masons, carpenters, and smiths, altogether 52 hands employed. The roof is being put on the account-house, and the engine-house will soon be commenced. The tin stuff is sampled to-day. I think the prospects very encouraging.

WHEAL PLENTY.—E. Borlase, Sept. 7: The lode in new shaft is worth 151 per fathom. The horse-whim is nearly complete. There is a cross cut from the engine-shaft driving towards this lode by two men, at 90 per fathom, and may have 20 fathoms more to reach it. There are two men driving west on a north lode, which contains a little tin, and there is tin in other lodes and branches near the sea—four men are clearing for the foundation of engine-house, &c., at 61 per fathom, but the sand is rather deep. In addition to the foregoing there are men quarrying and spalling. Masons, carpenters, and smiths, altogether 52 hands employed. The roof is being put on the account-house, and the engine-house will soon be commenced. The tin stuff is sampled to-day. I think the prospects very encouraging.

WHEAL SPAINON.—Wm. Treagar, Sept. 2: There is no change in the 55 cross-cut since last report; ground favourable for driving. **WHEAL UNY.**—W. Rich, Matthew Rogers, S. Coade, Jun., Sept. 2: We have made a communication between Hind's engine-shaft and the rise in the back of the 80 fm. level. The sinking of King's skip-shaft is being urged on as fast as possible. The stopes in the back of the 45, east of Gooding's shaft, are worth 141 per fathom. The 45 east is worth 121 per fathom. The 60 east is worth 101 per fathom. The winze in the bottom of the 60 is worth 101 per fathom. The 80 east is worth 201 per fathom. The rise in the back of this level is worth 121 per fathom. A winze in the bottom of the 30 is worth 81 per fathom. The 100 end east is in a hard bar of ground, worth 61 per fathom. The 110 end east is worth 121 per fathom. The 120 is worth 81 per fathom. The 130 east is worth 61 per fathom. The 140 east is worth 61 per fathom. The 140, west of incline, is worth 121 per fathom. The back of the 120 west is worth 81 per fathom. The 150 east, east and west of engine-shaft, are poor; the eastern end, however, has a very promising appearance. The rise in the back of the 160, east of engine-shaft, is worth 201 per fathom. We sold yesterday 10 tons 19 cwt. 2 qrs. 7 lbs. of tin, at 791. 13s. 4d. per ton.

STEEL FROM SULPHUR WASTE.—A limited company is in course of formation in Liverpool to develop a new chemical process by which, through the use of peat, steel capable of taking the highest polish, and applicable to the manufacture of fancy buttons and similar articles, is produced direct from waste thrown out at sulphur works. The process and operations are likely to be carried on at the works of the Peat Engineering and Sewage Filtration Company at Horwich. Some further reference to this latter company will be found in another column of this day's Journal.

The AMERICAN BOND AND SHAREHOLDERS' ASSOCIATION has been temporarily organised under the auspices of a number of gentlemen who have contributed towards the preliminary expenditure, the permanent committee to be elected by the annual subscribers on the second Tuesday in November in each year. It is urged that, excepting the bonds of the United States and those of a few of the individual States, very little is known in England respecting American securities. Even with regard to the bonds and shares of the oldest American railway companies imperfect information exists, as by the numerous consolidations, amalgamations, re-organisations, and leases within the last three years their financial and commercial position has been greatly changed—some for better, some for worse. It is estimated that of American securities, other than those of the Federal Government, complete ignorance prevails here concerning at least 95 per cent. The figures of these general securities held in Europe in 1861 touched \$200,000,000; they now reach \$500,000,000, and more than one-half of the increase is in bonds and shares that have entailed losses upon European investors, and these losses have been sustained chiefly in England, hence the discredit that is attached to American securities that are not Federal issues. The American Bond and Shareholders' Association is organised to remedy this evil—to give securities of a sound character, whether State, county, municipal, railway, canal, or mining, fair play in the London market. It will be under the control of a committee of five gentlemen, well known in City circles, aided by intelligent American advisers, and its rooms (convenient to the Stock Exchange) will be open during business hours, and will be accessible to persons desiring information with respect to American financial matters. All persons who have been members of any of the Stock Exchanges of Europe, and all bankers and merchants of the United Kingdom are eligible for membership upon the payment of two guineas in advance.

TERRAS.—The details of the first annual meeting appear in another column. During a period of little more than twelve months tin to the value of upwards of 20001. has been sold, and after debiting all costs, a good balance remains in hand. Several satisfactory reports were submitted, made by well-known practical Cornish authorities, the value of which was increased by the opinions therein expressed being independent and disinterested. It will be seen that the manager states the mine presents very favourable prospects.

CARN BREA.—Since the declaration of the dividend of 21 per share the price has fluctuated through market operations alone; the tone, however, is decidedly of a firm character, owing, no doubt, to the conservative manner in which the whole of the operations are being conducted, and also to the confidence placed in the management. Some idea of the value of this great property may be formed by the fact that at present there are no less than 21 productive points of operation, of the aggregate value of 2631. per fathom.

OLD TREBURGETT.—The directors and some of the principal shareholders have lately visited the mine, and examined the workings and surface operations for dressing the ore. They have all expressed great satisfaction at the way the mine is being developed, and the early prospect of substantial returns being made. The 50 has now been reached, and is being cleared of debris; reaching this point is very important, as it is said there is only another level below, which was not driven far enough to intersect the shoot of ore taken away in the workings above. Some very fine specimens of crystallised silver flabber ore has been raised from the 20 shaft, which it is proposed to send to the Geological and British Museums. Another parcel of silver-lead ore is now being prepared for market.

POLBRENN (St. Agnes).—The managers of this mine evinced their foresight by making their fourth sale of tin on Tuesday last, the day before the price dropped. A parcel of nearly 7 tons was sold, realising 801. 15s. per ton, the same as that obtained at the last sale in the beginning of July. Some splendid specimens of the ore from this mine are now to be seen at the offices of Mr. Y. Christian, Royal Exchange.

UTAH.—We have been favoured with a private letter, which appears in another column. The greater value attaches to this communication from the fact that the writer (Mr. Altman) is a member of the State Legislature of Colorado, and has had many years' of practical mining experience. It may be mentioned that the old furnace is yielding large profits, and the additional furnaces are approaching completion. Important discoveries have been made since the mines became the property of the present company.

RICHMOND CONSOLIDATED.—A telegram has been received to the effect that the weekly yield amounted to \$29,000.

NEVADA.—The *Eureka Sentinel* says that two furnaces of the old and two of the new pattern of the Eureka Consolidated produced in 24 hours 43,210 lbs. of bullion, valued at \$390 per ton, making a total of \$425 for the day's run. The bullion produced by four of the Eureka Consolidated Company's furnaces during the last 31 days was 526 tons, valued at \$220,000. This showing is largely in excess of any similar works of the same capacity in the United States, or on the Old Continent. The company disburse in this vicinity as expenses per month upwards of \$75,000. This expense includes the freight of the above amount of bullion to the refinery, where it shipped for separation. Truly, the old Buckeye and Champion Mines are giving out profitably to the stockholders to "an alarming extent." It is supposed that a dividend of \$2.50 or \$3 per share will be declared for June and July. Everything about the mines and furnaces is ably carried on by its scientific and gentlemanly general superintendent, Prof. Keyes, who has, by his energy and thorough understanding of the "situation," brought this company into such high repute that its stock will be largely sought after by home as well as foreign capitalists. These figures, of only one of our "institutions" in the smelting line, is a showing that places us in the front ranks, and one that all Eureka men may well feel proud of. Another, showing equally as good for its capacity, is that of the Richmond Consolidated Mining Company, which produced in 24 hours, ending on Aug. 6, 16,323 lbs., and ending on Aug. 7, 15,325 lbs. This is the largest amount of bullion produced by any one furnace in the district from ore alone. The value of the bullion exceeds \$100 per ton. We mentioned a few days since the sale of this valuable property to an English company in London. We are somewhat in a quandary to know whether to congratulate our home owners on this transaction of their agent in England, or to sorrow for them in the sale of a princely fortune for the apparently small sum reported by telegram to them here. There is no hesitancy, however, in our congratulations toward our cousins across the seas.

INVESTMENT CIRCULAR.—The September number of Mr. Thomas Thompson, Junr's, Investment Circular and Share List contains in addition to a review of the markets, and abstract of reports on foreign mines, a long series of mining notes, and articles on Silver Mining on Lake Superior, and on the Phenacites as Metallurgists, all of which will be read with interest by intending investors.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, SEPT. 8, 1871.

COPPER.		IRON.	
Best selected	76 0 0	Bars Welsh, in London	7 15 0
Tough cake and tile	74 0 0	Do, to arrive	7 15 0
Sheathing & sheets	76 0 0	Nail rods	8 0 0
Boils	79 0 0	Do, Stafford, in London	8 15 0
Bottoms	80 0 0	Do, ditto	8 15 0
Old	60 0 0	Hoops, ditto	9 10 0
Burra Burra	75 0 0	Do, at works	8 0 0
Wire	0 0 9 3/4-10d.	Hoops, ditto	8 12 6
Tubes	0 0 10 1/2-10 3/4	Sheets, single	10 5 0
BRASS.		Pig No. 1, in Wales	4 5 0
Sheet	81. 8 3/4d.	Refined metal, ditto	4 0 0
Wire	8d.	Bars, common ditto	6 17 6
Tubes	8d. 10 1/2d.	Do, mch. Tynor Tees	7 10 0
Yellow Metal Sheathing	6 1/2d. 7 1/2d.	Do, railway, in Wales	7 0 0
Sheets	6 1/2d. 7d.	Do, Swed. in London	2 6 0
SPELTER.		To arrive	9 17 6
Foreign on the spot	18 0 0	Pig No. 1, in Clyde	3 3 0
" to arrive	18 5 0	Do, f.o.b. Tynor Tees	2 6 0
ZINC.		Do, Nos. 3, 4, f.o.b. do	2 6 2 7
In sheets	24 10 0	Railway chairs	5 17 0
QUICKSILVER (p. bot.)	11 0 0	" spikes	0 12 0
TIN.		Indian Charcoal Pigs	
English blocks	£134 0 0	in London, p. ton	5 5 0
Do, bars (in brls.)	135 0 0	STEEL.	
Do, refined	138 0 0	Swed., in kegs (rolled)	12 5 0
Banca	135 0 0	(hammered)	13 0 0
Straits	129 0 0	Ditto, in faggots	15 0 0
TIN-PLATES.		English, spring	17 0 0
Per box.		LEAD.	
IC Charcoal, lat. qua.	1 9 6	English Pig, com.	18 0 0
IX Ditto, 1st quality	1 16 0	Ditto, L.B.	18 2 6
IX Ditto, 2d quality	1 7 6	Ditto, W.B.	Nominal.
IX Ditto, 3d quality	1 13 6	Ditto, sheet	18 5 0
IX Coke	1 5 6	Ditto, red lead	20 10 0
IX Ditto, 1st quality	1 11 0	Ditto, white	20 3 0
Canada plates, p. ton	13 10 0	Ditto, patent shot	20 5 0
Ditto, at works	13 10 0	Spanish	17 10 0

* At the works, 1s. to 1s. 6d. per box less. † Add 6s. for each x. Terne-plates 2s. per box below tin-plates of similar brand.

REMARKS.—The general condition of our markets is good, and providing no unforeseen event arises to interfere with the course of affairs, the security of their position is apparently removed beyond all doubt. The anticipations of improvement are well founded, and any further procrastination on the part of buyers to avail themselves of the present favourable opportunity for securing their probable requirements can only jeopardise their interests. The advisability of immediately giving out orders cannot be too strongly recommended, as the termination of the dull season is fast approaching, which will doubtless be succeeded by a more rapid resuscitation in most branches of business than at first imagined, and also be instrumental in enabling sellers to realise enhanced prices. The late quietude has, in some instances, proved rather a severe test to the equality of prices, but the uniform steadiness with which they have been maintained is an undoubted confirmation of their strength, and a good criterion as to their future tendency.

COPPER.—Although orders have not been given out quite so freely as could be wished, yet there has been sufficient doing to need no further concessions from smelters; indeed, where business could be transacted last week it is now impracticable at previous prices. India sheets were taken at 751., but indents at these limits have since been declined, and the majority of sellers hold for 771. There is already a slight favourable turn in the demand for both wrought and unwrought, and it is pretty evident that the most critical period of the market has passed away. Telegrams are arriving from the East, with improved limits, and this looks well for the future. As already shown, there are large deficiencies for these parts, to be made up during the remaining part of this year. The home trade is also improving, and deliveries are beginning to become pressing; in fact, reports from nearly all quarters are of a progressive character, and there are good prospects of a lively market ensuing. What is chiefly wanting is to restore confidence. Both buyers and sellers for some years past have exhibited such an utter want of confidence in the prices of this metal that it is not surprising there should be some difficulty experienced in re-establishing implicit faith, but as soon as this long prevailing distrust is removed, the way will be laid for higher prices. The movement should certainly first come from sellers; and when buyers understand that they can no longer rule the market by dictating their own terms they will not hesitate then so much in buying, and business will flow more smoothly and regularly. Consumers, whose stocks are very reduced, will buy not only for immediate use, but will provide against future wants by keeping a little by them in reserve; and when once this feeling becomes general, as it certainly will sooner or later, up will go the price, such being the course which experience not infrequently shows to be the case, "from absurdly low prices to extremely high prices." An average price of any staple commodity is invariably considered safe in the end; therefore, "copper," which is much below the average, is destined in due time to attain its proper standard. Further sales of ore have been effected, at 13s. 9d.; regulus, 14s.; Chilli bars, 671. to 691.; Australian cake, 761. 10s.

YELLOW METAL has been more enquired for, and sellers are firmer in their rates; 61 for 4 by 4 sheets is now exceptional; 61 1/2 for 6 1/2 is the current quotation.

IRON.—A few large orders have been placed for rails for the American market. Light rails continue in good demand, and as high as 71. 7s. 6d. paid for delivery at the works. Welsh merchant bars are advancing, and, before making a price, ironmasters prefer seeing the issue of the Staffordshire meetings. The London firms scarcely know how to act, and mostly decline for the present quoting prices and taking any risk about delivery. A large quantity of various kinds of iron is required by the dealers, whose stocks are getting very low. The unsettled state of the Staffordshire districts causes inconvenience; sellers, on the one hand, are timid of taking orders or fixing time of delivery, and buyers, acting on the cautious side, do not like paying in advance of the recognised flat prices; so between the two little is being done. The ironmasters, however, having plenty of work to go on with, are consequently perfectly indifferent for the time being; but those buyers who are waiting for supplies and cannot even place their orders find it most provoking to be obliged to wait so long in doubt. The present state of things is certainly attended with a vast deal of trouble and vexatious delay, and the sooner an amicable settlement is arrived at the better. Whether the millmen succeed in obtaining their increase of wages or not, sellers seem bent upon endeavouring to force rates up a further 11s. per ton. Several of the London firms have already declared this additional advance, and, with regard to hoops, talk of an eventual rise of 30s. upon this description of iron. There has been a very satisfactory business doing in iron, and any further prevailing distrust is likely to check the demand; but so great an advance as now spoken of may very considerably diminish the export trade, and sellers may find to their cost that they have attempted a little too much. A steady, gradual improvement is far preferable; buyers become aware of the change taking place, and are better prepared to meet it. Where contracts have been entered into based upon old prices hasty and great advances often involve serious losses to buyers, and ought to be deprecated. In Swedish bars no alteration has occurred; the market is maintained at former rates. Scotch pigs have been less active, and prices slightly drooping; 69s. 6d. cash has been accepted for nearly high prices, since which the market has somewhat rallied to the extent of about 6s. per ton. The shipments of the week have rather fallen off, and the prices of shipping iron are a little easier.

SHIPMENTS.—For the week ending Sept. 2, 1871 Tons 12,874
For the week ending Sept. 3, 1870 Tons 10,608

Increase 2,266
Total increase since Dec. 25, 1870 Tons 128,694

LEAD.—The firmness of sellers has continued, and they show no disposition to yield to lower rates. Common brands of English pig 181., special brands 2s. 6d. to 5s. dearer, W.B. scarce, and very difficult to secure within any reasonable time.

SPELTER.—The enquiries for foreign are limited, and the market throughout the week has been wanting in animation. Hard is not quite so firm, the last accounts from Calcutta reporting lower rates. Stock in London, 3747 tons.

QUICKSILVER.—A further rise has been announced in this metal, and even now only very small quantities can be procured. Holders decline selling more than 25 bottles at a time—not under 111. per bottle; the reason of this may not arise so much from short supplies as to prevent speculation in the article, and avoid competition hereafter. As the control of the market is entirely in the power of one house, it is impossible to foresee the future price. According to the value fixed a short time since—121.—there is no doubt it will shortly reach that if not a higher figure. Shipments are limited, owing to the dearthness of the price, and the consumption both at home and abroad may be greatly interrupted thereby.

TIN.—English has again further receded, sales of blocks having been effected at 1341., being a reduction of 11, to 21, upon last week's quotation. Foreign has also slightly given way, a small quantity of Straits having changed hands at 1291. 10s., but the principal holders prefer waiting to see the result of the Banca sale in Holland on Sept. 29 before selling any large quantity, besides it would be very difficult to sell large parcels unless a good concession was submitted to, buyers being by no means eager to increase stock at the present high rates. The increasing demand for tin-plate purposes will tend to give support to the market, and no material decline in value can be anticipated.

TIN-PLATES.—Makers keep well supplied with orders, and the demand for charcoal for America is especially good. Prices are maintained with firmness for both coke and charcoal.

STEEL.—There is no change to report, the orders for steel rails

cannot be executed with sufficient dispatch to meet buyers' requirements. Foreign is still neglected, although the advices from India are less unfavourable than for some time past.

COPPER.—Messrs. James and Shakspeare—About 2200 tons of regulus for Swansea delivery have been taken by the smelters there at 13s. 9d. per unit, and in Liverpool 3d. more was paid yesterday for about 700 tons. In bars a large business has been done at 661. 10s. to 671. for Lota; 671. for Urmeta; 671. 10s. and 671. 15s. for ordinary brands; 691. for J. Edwards; the sales were chiefly of Lota and Urmeta, and it has been transpired that about 300 tons of the latter brand were taken at the figure mentioned, for delivery during the last three months of the present year. It is difficult to assign any particular reason for this improvement, but both consumers and exporters seem to have felt that prices were reasonable, and were anxious to secure a fair stock on moderate terms. Since these operations the market has been much firmer, and values have improved about 10s. per ton, though the advance asked has not yet been paid. There is also more doing in Australian sorts, and about 400 tons Wallaroo have been placed at a trifle below our list quotations. English is likewise in better demand, as far as regards raw sorts, but manufactured, especially of dimensions suited to Eastern markets, continues very dull of sale.

Messrs. Vivian, Younger, and Bond—We have to report a considerable movement in all sorts of copper since our last circular was written. The business done has been large, and the prices of Chilli produce have advanced. About 1800 tons of Chilli bars have changed hands, at from 661. 10s. to 671. 5s. for Lota, 681. for good ordinary brands, and 691. for J. Edwards. We close with buyers at the highest rates. About 200 tons of regulus were taken by Swansea smelters at 13s. 9d., since which 14s. has been paid for a Liverpool cargo to arrive, the same figure being offered for spot stuff and refused. A moderate trade is doing in Wallaroo, at 761. to 761. 10s., but other fine foreign copper is neglected. For English sorts the enquiries have been numerous, and at 21. under official quotations some heavy contracts have been entered into by the trade, but advance on these rates is now demanded.

A drop of 21. per ton in the price of tin has rather added to the depression of the MINING SHARE MARKET this week, and business transactions, except in one or two mines where great fluctuations have taken place, have been of limited extent. The mine shares mostly dealt in have been those of Carn Brea, West Franches, West Basset, South Condor, Wheal Grenville, Utah, Pacific, Eberhardt and Aurora, East Lovell, Dolcoath, South Franches, Great Vor, West Caradon, West Chiverton, Prince of Wales, East Van, and a few others. Carn Brea shares, which at our last had declined to 1301., rose early in the week to 1451., and, after various fluctuations, leave off 140 to 145. East Lovell shares had suddenly risen to 141, but they soon declined to 111, and leave off 12, 13; at the meeting the accounts showed tin sold for the quarter 28331. 4s. 11d., and a balance in hand of 17211. 17s. 1d., out of which the dividend of 12s. 6d. per share was declared. The costs to May amounted to 12511. 14s. 4d. The report states that shortly after the last meeting the eastern tin ground about the 80 unexpectedly failed, and greatly lessened the returns of tin. The western winze from the 70 has been communicated to the 80, and sinking below the 80 has been commenced in a good lode, worth 1001. to 1301. per fathom.

Tincroft, 46 to 47; at the meeting, the accounts presented showed a profit of 10,6131. on the quarter, and a dividend of 90001. (11. 10s. per share), together with a bonus of 15001. (5s. per share), was declared, leaving 8361. to the credit of next account. The mine never looked better, and the prospects are considered very good for many years to come. The winze sinking below the 222 is worth 1201. per fathom. At North Levant meeting the accounts showed a balance in hand of 17231. in favour of the adventurers, and a dividend of 15s. per share was declared, and a balance of 2231. carried forward. The mine is reported as looking well, and an additional 16 heads of stamps are to be erected. South Franches, 49 to 51; at the meeting the accounts showed a profit on the two months of June and July of 351. 16s., and a credit balance of 6891. 13s. 10d. The copper ores sold realised 3381. 18s. 3d.; tin, 16331. 17s. 1d. The small tin sales have been owing to the damage to the boiler, and the length of time occupied in repairing it, which caused 16 heads of stamps to be idle for a month. As the repairs are now complete, the returns in the next account will be correspondingly increased. West Caradon shares have advanced to 21 to 23; the north part of Allen's lode, in the 66, has been cut, worth 3 tons per fathom. Wheal Mary Ann, 7 to 8; at the meeting, held on Tuesday, a call of 11. per share was made, to cover the anticipated purchase of Wheal Trelawny mine materials, &c., estimated at 30001. In addition to the call, the sum usually appropriated to the quarterly dividend will be reserved for the same purpose. The accounts show a profit of 6031. 8s. 4d. on the quarter, and a balance carried forward, irrespective of the call, of 21571. 7s. 3d. Dividends, it is expected, will be resumed at the next or subsequent meeting. Wheal Lucy, 3 to 3 1/2.

Bronfloyd stock, 105 to 110. We understand Hodgson's Wire Tramway Company is erecting its patent apparatus from the dressing-floor, a distance of 1260 yards, which will be a practical test of its value for the removal of mine produce. The advantage of this mode of transit in the case of Bronfloyd will be apparent when it is known that it will save the slow and expensive draught up a very steep incline of 268 feet immediately out of the works, and a similar descent to the level of the main road at Penrhynoch. Blaen Caelan, 11 to 13. East Grenville, 31 to 33; the 75 east is producing 2 to 2 1/2 tons of copper ore per fathom; the lode in the winze sinking below this level will produce 7 tons of copper ore per fathom; the stope above, 21 tons; the 65 east, 3 tons. Dog, 21 to 23; Caegynon, 11 to 11 1/2; Cook's Kitchen, 27 to 28; Drake Walls, 15s. to 20s.; East Van, 12 to 13 1/2; East Caradon, 5 to 5 1/2; East Seton, 20s. to 25s. Great North Laxey shares have been in good demand, at 17s. 6d. to 22s. 6d., fully paid-up; the mine is improving. Great Wheal Vor, 91 to 101; Hingston Down, 23 to 31; Marke Valley, 5 1/2 to 5 3/4.

Pennerley, 3 1/2 to 4 1/2; the lode in the 130, east of the engine-shaft, is 3 feet wide, worth 2 to 3 tons of lead ore per fathom. On the 9th 65 tons of lead ore will be sampled. New Rosewarne, 50 to 60; North Crofty, 1 1/2 to 2; North Roskear, 16 to 17; Prince of Wales, 16s. to 18s.; Providence Mines, 24 to 26; Roman Gravel, 181 to 191; South Condor, 91 to 93; Tankerville, 161 to 171; Van, 55 to 57 1/2; Van Consols, 1 1/2 to 1 3/4; West Basset, 5 to 5 1/2. West Chiverton shares have declined, from 16 to 17; West Franches, 65 to 67 1/2; West Seton, 130 to 135; West Tankerville, 3 1/2 to 3 3/4; Wheal Basset, 62 1/2 to 67 1/2; Wheal Buller, 10 to 12. Wheal Grenville shares have been more in request, at 6 1/2 to 7 1/2; Wheal Jane, 40 to 42; Wheal Margaret, 16 to 17; Wheal Uny, 7 1/2 to 8. South Carn Brea shares have fluctuated from 20s. to 25s., and leave off better. Gwydyr Park, 15s. to 20s.; Wheal Kitty (St. Agnes), 91 to 101; Carn Camborne, 3 to 3 1/2; Dolcoath, 180 to 185; East Basset, 6 to 8; Pen-halls, 5 to 6; Rosewall Hill and Ransom United, 20s. to 22s. 6d.; South Crofty, 21 to 22; Wheal Agar, 29s. to 31s. Devon Great Consols, 95 to 100; Cole's winze, below the 130, is still worth 20 tons of copper ore per fathom. The 130 east is worth 251. per fathom, the 130 west 251., and Gilbert's winze 251. per fathom.

In Foreign Mines business has also been restricted, and the chief transactions have been in Pacific, Utah, Eberhardt and Aurora, South Aurora, Sierra Buttes, &c. Eberhardt shares rose to 40, but declined, and leave off 36 to 37; Pacific, 5 to 5 1/2; Utah, 16 to 17; Chontales, 30s. to 35s. Sierra Buttes, 41 to 51; the receipts to Aug. were \$35,354, expenses \$19,756. South Aurora, 3 1/2 to 4 1/2; St. John del Rey, 31 to 32. Yudaanmutana, slightly better at 1 1/2 to 1; Don Pedro, 21 to 31 prem; Sweetland Creek, 3 1/2 to 4; Birdseye, 4 to 4 1/2.

The Market for Mining Shares on the Stock Exchange has exhibited a considerable degree of activity, especially for Utah shares, which on very favourable advices, have improved to 171. buyers, and a large business has been transacted. A telegram received yesterday gives as the result of the week's operations 21 tons of bullion, valued at \$187 per ton, or 7851. 8s.; this is from the old furnace. Good progress is being made with the new furnaces, which are expected to be completed this month. Eberhardt shares, after having been flatter, close firm at 36 to 38. A remittance of 90001. has been made within the past few days. Large profits are now being realised, 100 heads of stamps being at work. Pacific advices are very good, the late great advance has, no doubt, induced a few cheap purchasers to realise. About 20001. in silver bars is on its way to this country, and it is expected that regular and large returns will now be made. The accounts from Sierra Buttes show a net profit on the month's clean-up of \$15,998; shares are at 41 to 51. Sweetland Creek and Birdseye shares remain steady at former prices. A very fair business has been transacted, especially in Sweetland. The works in progress in each of these mines are being pushed on with the utmost speed.

British mine shares, with the exception of Van and Pennerley,

have had a somewhat drooping tendency, principally owing to the absence of dealings. The holiday season, however, being now in some degree over, a fresh impetus will undoubtedly be given to mining enterprises generally. At Van Mine the special reports of Messrs. Arthur Waters and Walter Eady, published recently, are being fully confirmed in the actual working. The lode in the mine, 45 fathoms east of the shaft sinking under the 15, is laying open the richest course of ore yet seen in this extraordinary mine. The reports from East Van are of a highly favourable character, and the manager of Van, in his advice to-day, expresses a confident opinion that East Van will shortly prove a formidable rival to its rich neighbour on the west. The report from Roman Gravels still continues good, and shares command attention at an advance. Tankerville shares are without quotable change, and West Tankerville shares are improved. Bog and Perkins Beach are unchanged. The Pennerley report (which will be found in another column) is the best yet received, and speaks well for the future of the company. Important discoveries have been made, and others are expected at an early date.

In tin mines there has been less activity, in consequence of a further decline in the price of tin. At Tineroff a dividend has been declared of 35s., and a favourable report has been issued to the adventurers. Carn Breas have recovered from the recent fall. The following are the closing quotations:—Assheton, 4½ to 5; Devon Great Consols, 97½ to 102½; East Lovell, 12 to 12½; Great Vor, 9½ to 9¾; Great Laxey, 16½ to 17½; Marke Valley, 5½ to 6; Tankerville, 16½ to 17; Tineroff, 46 to 48; Van, 56 to 58; East Van, 12½ to 13; West Chiverton, 15 to 17; Bog, 2½ to 2¾; Pennerley, 3½ to 4½; Perkins Beach, 1½ to 1¾; Roman Gravels, 18½ to 19½; Almada, 1 to 1½; Birdseye Creek, 4 to 4½; Cape Copper, 9½ to 10 prem.; Colorado Terrible, 5½ to 6; Don Pedro, 2½ to 3 prem.; Eberhardt and Aurora, 36 to 38; Pacific, 5 to 5½; Sierra Buttes, 4½ to 5; Sweetland Creek, 3½ to 4; ex div.; South Aurora, 3½ to 3¾; Silver Plume, 2½ to 3½; United Mexican, 3½ to 3¾; and Utah, 16½ to 17½.

TIN.—The Standards of Tin Ore were reduced on Wednesday, and are now as follows:—Common, 12s.; superior common, 12s.; fine, 12s.; superior fine, 12s.

Messrs. Blyth and Co., 17, Gracechurch-street, are inviting subscriptions for 1600 TWELVE PER CENT. FIRST MORTGAGE DEBENTURE BONDS of 100l. each, payable to bearer (and redeemable at 110l. each), secured by a first charge upon nine large productive oil wells, distillery, machinery, plant, and 1118 acres of freehold oil lands, now in full operation, and belonging to the CANADIAN OIL WORKS CORPORATION, which has a capital of 340,000l., and is at present earning an annual profit of upwards of 100,000l. As the amount required for the payment of the interest and the redemption of the bonds, with the redemption bonus, will not exceed 53,000l. per annum, which will gradually diminish, there will be ample funds to meet all requirements, and leave a large surplus for dividend on the share capital. The set of wells to be acquired by the corporation is described as one of the largest and most complete in Canada, and the distillery, refinery, plant, machinery, effects, and stock-in-trade are all in the best possible condition for carrying on a large and lucrative business. Three of the company's wells—Gem, Eclipse, and Moonlight—opened in 1866, have produced 562,817 barrels of oil, and the quality is so high that it commands a higher price in the market than any other oil in the country. Two others, sunk in 1867, have yielded upwards of 236,360 barrels; and the other four, although only sunk within the last few months, have already yielded 69,649 barrels. The combined wells are now yielding an average of 800 barrels per day. These facts are vouched for by the reports of the provincial Government Surveyor, Mr. J. J. Francis, made under the personal direction of H.B.M. Consul at Buffalo. It is a noteworthy fact that all of the chief producing wells of this district yet sunk none have ceased yielding oil, although some have been in active operation for more than six years. We are informed that the corporation have made arrangements with Messrs. Frederick Huth and Co. to undertake the commercial agency of the undertaking. The prospectus will be found in another column.

The KANSAS MINING COMPANY (the prospectus of which appears in another column), has been formed, with a capital of 55,000l., in 11,000 shares, of 5l. each, to acquire and work a mine situated in the Nevada mining district of Colorado. The property comprises an extent of 400 feet in length of the well-known Kansas ledge. Mr. Robinson, M. Inst. C.E., F.G.S. (Messrs. Shelford and Robinson), describes the property as situated on one of the most important veins in the chief centre of Colorado gold mining. It is a true fissure vein, rich in gold and silver, in combination chiefly with galena, &c. It is estimated that 420 fms. of ore ground are available, which is equivalent to 8400 tons, of the net value of 20,000l., which could be realised in a few months. During the extraction of these reserves it is proposed to extend the explorations, by which it is calculated the mine will yield a net profit of 25,000l. per annum. The books of the late owners show that 150 ft. yielded between May 1 and July 16 the sum of 6785l. The directors are influential members of the Stock Exchange.

The Imperial Bank is instructed to receive subscriptions for \$1,400,000 STATE OF GEORGIA, UNITED STATES, SEVEN PER CENT. STATE BONDS to bearer, of \$1000 each bond. Payable principal and interest in gold coin. The issue price, 175l. 10s. sterling, per bond of \$1000, being at the rate of 78 per cent., 4s. 6d. per dollar, and yielding 8 per cent. per annum on the investment. The present is the balance of a total issue of \$3,880,000 bonds created for the general purposes of the State, and in aid of the Brunswick and Albany Railroad Company, and the completion of the Western and Atlantic Railroad, now owned by the State; \$2,480,000 having been taken in the United States and in Europe.

The CARMARTHEN SILVER-LEAD MINING COMPANY has been formed, with a capital of 25,000l., in shares of 5l. each, to acquire, for 8500l., the leases of valuable silver-lead mines, situated at Trelech, Carmarthenshire, and for working the same. It is stated that the former proprietors, with less than 1000l. capital, raised from one lode 10,000l. worth of ore, and that the stopes at the bottom of the 54 fm. level yielded 2½ tons per fathom; the mines were then abandoned. The late Mr. Evan Hopkins described the formation as embracing one of the best metalliferous ranges in the Principality. Captain Waters reports, with regard to recent operations, that the average yield for 20 fms. long, between the 42 and 54 fm. levels, has been 2½ tons per fathom, four men getting therefrom 18 tons monthly during the past year. The rock is of a splendid character, and warrants a continuation of the ore downwards. Captains Sanders and Paul express equally favourable opinions. The lease is for 18 years unexpired, at 1-20th royalty, and it is considered that dividends may be expected as soon as the second lode is cut. The prospectus will be found in another column.

The EAST BOTTLE HILL MINING COMPANY, with a capital of 30,000l., in shares of 5l. each, has been incorporated with limited liability, for the purpose of taking over and further developing the mine of the same name hitherto worked by the cost-book company. The terms of purchase are very favourable; the cost-book shareholders are to receive fully-paid shares in the new company to the extent of one-half of their present holding, and shares considered as 4l. paid in respect of the remaining half. The lodes are seven in number traversing the property. The Great Champion lode of the district is stated to have returned ores to the value of about two millions sterling, and it will be seen from the reports that it traverses the sett for about 400 fms. A great quantity of tin ground is already opened up on Nos. 3 and 4 lodes, and No. 5 tin lode will shortly be intersected at the depth of 40 fms. from surface. The sett is held for 30 years, at 20l. per annum rental, merging into 1-18th royalty, to be reduced to 1-20th when the engine is erected. Ore from the Bottle Hill copper lode yielded, according to Messrs. Johnson, Matthey, and Co.'s assay, from 29 to 5 per cent., whilst samples from other parts of the mine gave 19, 9, 8, 3, and 4 per cent. respectively. The reports of Capt. Gregory and Eddy are highly favourable, and the value of the mine is confirmed by Messrs. Foxey and Jones, two working miners, whose reports (made since the Great Champion lode has been discovered) show that great results may be looked forward to, such as to justify the directors in their belief that they possess a

mining property of very great value for careful development. The prospectus will be found in another column.

At the Wheal Mary Hutchings United Mining Company quarterly meeting, on Aug. 30, the three months' accounts, to end of July, showed a profit of 282l. 6s., and a credit balance of 736l. 18s. 5d. The report of the manager, Capt. H. Miners, was considered very satisfactory. It was proposed by Captain Tom, seconded by Mr. A. Broad, and carried, that a dividend of 7s. 6d. per share be paid to the shareholders. The salary of the manager, Capt. H. Miners, was increased to 12l. 12s. per month. The tin sold during the last quarter, 17 tons 2 cwt. 0 qrs. 3 lbs., realised 1410l. 4s. 10d.

At Cashwell Mine meeting, on Aug. 31 (Mr. John Clarke in the chair), the accounts showed a credit balance of 1306l. 17s. 4d. A dividend of 1150l. (3s. 6d. per share) was declared, and a gratuity of 25l. was voted to Capt. John Peart. Messrs. J. Clarke and W. C. Arnison were re-elected directors, and the same fees as last year were voted. Captain John Peart reported upon the various points of operation. The mine is very good; the headings in the Seal limestone looking well, and having good ore in the pit. He thinks the shareholders have every reason to congratulate themselves on the value of the mine.

At South Wales Frances meeting, on Monday, the accounts for June and July showed a profit of 351. 16s., and a credit balance of 483. 13s. 10d. The committee, in alluding to the report of the agents, touching the damage to and length of time occupied in repairing the boiler, deem it right to impress on the shareholders, for their satisfaction, that this casualty, by compelling sixteen heads of stamps to be idle a month, is the sole cause of the return of tin for the past two months being reduced, and the profit so small. The repairs, however, being now effectually completed, and the new drawing appliance at Pascoe's shaft in active preparation, the returns for next account will be correspondingly increased. [The agents' report is among the Mining Correspondence.]

East Bottle Hill Mining Company shares are quoted 6½ to 7. Carmarthen Silver-Lead Mine shares were dealt in yesterday (Friday) at 1½ prem.

The shares of the Mineral Hill Silver Mines Company (Limited) are 17½ to 17¾ per share, and the debentures 101 to 102. South Aurora are very firm at 3½ to 4½ per share, on rumours of satisfactory reports from the mine.

With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: A Day with the South Staffordshire and North of England Mining Engineers; Royal School of Mines (L. Gordon); Suggestion for a Model Colliery; Prof. Jevons on the Report of the Royal Commissioners; Royal Commission on Coal (J. E. Mammatt); Boring Machines in Mines (G. Rickard); Gases in Metallic Mines (W. C. Bew); American Mining, and English Capital; Gold Mining in New Zealand (J. Thomas); Mining in the Yellow Pine District (J. White); "The Times," and the Eberhardt Mine; Silver Mines of New Mexico; Mining Mysteries; Miners' Wages; South Li-burne Mine (J. Kemp); Queen and Virtuous Lady Mines; Lush Mining Company—Excursions of the Iron and Steel Institute; the North Mining Engineers; and the South Staffordshire and East Worcestershire Institute—Oil Wells in Canada—Mineral Resources of New Zealand—Peat, and Peat Charcoal—Mining Tools, their Manufacture and Uses—Bancart's Patent Furnace for Roasting Silver Ores (illustrated)—Foreign Mining and Metallurgy—Foreign and Colonial Mines Reports—Patent Matters, &c.

STRATHDON HEMATITE ORES.

THE PROPRIETORS OF ALLARGUE, in the parish of STRATHDON, and county of ABERDEEN, are prepared to entertain PROPOSALS for a LEASE for RESUMING MINING OPERATIONS in this field. Application may be made to MILNE and WALKER, Advocates, 16, Union-terrace, Aberdeen.

COLORADO GOLD AND SILVER MINING DISTRICT.

AN ENGLISH GENTLEMAN will shortly arrive in London who has VISITED and INSPECTED several of these mines, and will be PREPARED to OFFER some GOOD PROPERTIES at LOW PRICES. Parties desiring to purchase can apply to "A. P." MINING JOURNAL Office, 26, Fleet-street.

CASHIER, OR MANAGER.

A GENTLEMAN, who has filled his present position as above in a large Manufacturing Concern for the past five years, is OPEN to a NEW AND INTERESTING. Highest testimonials and references. Security given. Address, "B. S. J.," MINING JOURNAL Office, 26, Fleet-street, London, September 4, 1871.

A MINING ENGINEER, of large experience, OFFERS his SERVICES to anyone requiring REPORTS, VALUATIONS, PLANS, ESTIMATES, or ADVICE of any kind as to the OPENING OUT or WORKING of MINERALS at home or abroad. Address, "C. V. and M. E.," MINING JOURNAL Office, 26, Fleet-street, E.C.

TO MINING AND OTHER COMPANIES.

A SECRETARY of a PUBLIC COMPANY, of many years' experience, is prepared to OFFER his SERVICES as SECRETARY to an additional MINING or OTHER COMPANY, together with joint occupation of excellent offices in the heart of the City. Considerable saving can be effected by a company adopting this arrangement. Terms upon application, by letter only, to "Secretary," care of Messrs. J. Burbridge and Co., 35A, Moorgate-street.

WORKING FOREMAN WANTED, for an IRON MINE in CORNWALL. Must understand the Working of Iron Mines. Apply, giving references, and stating wages, to WM. SLATER, 9B, New Broad-street, London.

WANTED, a SITUATION, to TAKE CHARGE of a LEAD MINE, by one who has had extensive experience, and thoroughly understands Dripping, Mapping, and Assaying, together with every other branch connected with Mining. Testimonials and references can be produced from high authorities. Address, "A. B. L. O.," Times Office, Douglas, Isle of Man.

[The Advertiser knows of a VALUABLE PIECE of MINERAL GROUND on the Island, which he could secure; but, as he requires some little assistance, would like to correspond with parties who are disposed to assist in its development.]

WANTED, to proceed to SIAM, a MINE AGENT, who has had experience in Working Gold Quartz, either in Australia or California. A liberal salary will be given to a person competent to erect and work the necessary machinery. Apply by letter, with testimonials, to J. ARTHUR PHILLIPS, Cressington Park, Alburgh, Liverpool.

WANTED, a SITUATION as VIEWER or RESIDENT VIEWER. Can be well recommended by several leading Mining Engineers. Address, "T. A.," MINING JOURNAL Office, 26, Fleet-street, London.

WANTED, a THOROUGHLY EXPERIENCED MANAGER for a SILVER-LEAD MINE on the Continent. State salary required and full particulars by letter. Address, "A. B.," Messrs. Whitehead, Morris, and Lowe, 168, Fenchurch-street, E.C.

WANTED, by a Gentleman who has an extensive acquaintance with Birmingham manufacturers, a COMMISSION for the SALE of COPPER, SPELTER, TIN, and TIN PLATES. Apply by letter to "M.," New Club, Birmingham.

WANTED, a STEAM PUMPING ENGINE, of from 40 to 50-inch cylinder, with BOILERS, &c., complete, and not less than 12-inch pitwork. Tenders to be sent to Mr. R. EMERSON, 71 and 72, Bishopsgate-street Within, London, E.C.

TRANNAK TIN AND COPPER MINE. WANTED, FIFTY TO ONE HUNDRED SHARES, £5 paid, at 25s. cash on delivery. Apply to "O. B.," MINING JOURNAL Office, 26, Fleet-street, London.

WANTED TO LET, immediately, in the Parish of Harberton, near Totnes, Devon, PART of a NEW SLATE QUARRY (called Hardy's Daffins), according to arrangements as may be agreed upon. Quality very superior, of dark blue rock. Sole lessee, Miss Catherine Hardy. The proprietor, Mr. R. J. Hardy, will grant an additional lease for any period the company wish. Address, Miss CATHERINE HARDY, or Mr. R. J. HARDY, Merchant, Harberton, near Totnes, Devon.

TO CONCESSIONAIRES, PROMOTERS, AND FINANCIERS. SHARES IN NEW ENTERPRISES SUCCESSFULLY INFLUENCED AND PLACED. Address, in perfect confidence, "Operator," care of John Baptist Wolpert, Advertising Agent, 24, Austinfriars, E.C.

FOR SALE, separately, at reduced prices, the VALUABLE TOOLS and OTHER APPLIANCES used at New Dock Works, Leeds, in the manufacture of railway plant, wagon and carriage building, general engineering, &c., &c. For prices and particulars, apply to Mr. JAMES POWELL, Consulting Engineer and Valuer of Engineering Plant, &c., 80, Basinghall-street, Leeds.

MR. W. E. JOHNSON (late Secretary of the Mining Exchange) begs to OFFER his SERVICES to the public in the PURCHASE and SALE of STOCKS and SHARES in MINES, RAILWAYS, FOREIGN BONDS, &c. Having had over 17 years' experience, and a thorough knowledge of the business, is in a position to act advantageously for his clients. 19, Finner's-hall, Old Broad-street, London, September, 1871.

ZINC AND LEAD ORES.

I AM PAYING as follows:—

BLENDE.—135s. for 63 units of zinc, deducting 3s. 5d. per unit below. CALAMINE.—10s. more than for blende. LEAD-SILVER ORES.—215s. for 85 units of lead, deducting 3s. 3d. per unit below, all the silver being paid extra 5s. per ounce troy. ZINC AND LEAD ORES MIXED TOGETHER.—Very high prices. The above prices are fixed for a ton (20 cwt.) of ore, f.o.b. at Antwerp. I BUY any quantities, however large, contracting for as many years as desired. Particulars by letter.

ARMAND FALLIZE, Ingénieur, à Liège (Belgium).

TO COAL MERCHANTS, AND OTHERS.

THE TUNBRIDGE WELLS LOCAL BOARD are ready to RECEIVE TENDERS for the SUPPLY of from TWO HUNDRED to THREE HUNDRED TONS of hand-picked STEAM COALS, from the following veins:—

NIXON, TAYLOR, AND CORY'S "NAVIGATION." POWELL'S "DUFFRYN." FOTHERGILL'S "ABERDARE." M. JONES'S "MANTMELLYN." WAYNE'S "MERTHYR." DAVIES'S "BLANGWYR." INSOLE'S AND SON'S ABERAMAN "MERTHYR." DORRIS'S "MERTHYR." TANFIELD MOOR COALS.

The same to be delivered at the Waterworks, at Pembury, Kent, in accordance with the orders of the engineer. Tenders to be sent in by Saturday, the 16th September, 1871. The lowest, or any tender, will not necessarily be accepted. Address for further particulars to—

THOMAS LEWIS, Clerk to the Local Board, Town Hall, Tunbridge Wells.

TECHNICAL EDUCATION

SCIENCE AND ART DEPARTMENT.

ROYAL COLLEGE OF SCIENCE FOR IRELAND, STEPHEN'S GREEN, DUBLIN.

SESSION 1871-72.

This College supplies, as far as practicable, a complete Course of Instruction in Science applicable to the Industrial Arts, especially those which may be classed broadly under the heads of CHEMICAL MANUFACTURES, MINING, ENGINEERING, and AGRICULTURE. A Diploma of Associate of the College is granted at the end of the Three Years' Course.

The Course of Instruction is recognised by the Secretary of State for India as qualifying for Appointments in the Engineering Department.

There are Four Royal Scholarships, of the value of £50 each yearly, with free education, including Laboratory Instruction, tenable for two years. Two become vacant each year. They are given to Students who have been a year in the College. There are also Nine Exhibitions attached to the College, of the yearly value of £50 each, with Free Education and Laboratory Instruction, tenable for three years. Three become vacant each year. These are awarded at the Annual May Examinations of the Science and Art Department. The fees are £2 for each Course, or £10 for all the Courses of each year, with the exception of Laboratory.

The Laboratory Fee is £12 for the full Course of nine months, or £2 per month.

SUBJECTS OF INSTRUCTION.

Applied Mathematics, Mechanism and Machinery, Descriptive Geometry, Geometrical, Mechanical, and Engineering Drawing, Experimental Physics, Chemistry (Theoretical and Practical), Botany, Zoology, Geology and Palaeontology, Mining, Surveying, Agriculture.

The Laboratory is open for Instruction in Practical Chemistry, Metallurgy, and Assaying from Ten to Four o'clock every weekday during the Session, except Saturdays and holidays.

The Session commences on MONDAY, October 2. Programmes may be obtained on application to the Secretary, Royal College of Science, Stephen's Green, Dublin. FRDERICK J. SIDNEY, LL.D., Secretary.

Royal School of Mines.

NOTICE.—ROYAL SCHOOL OF MINES, JERMYN STREET, STREET, LONDON.—The TWENTY-FIRST SESSION will BEGIN on MONDAY, the 2nd of October. Prospectuses may be had on application. TRENHAM REEKS, Registrar.

GEOLOGY.—TWO CABINETS FOR SALE, containing 600 specimens of MINERALS, ROCKS, and FOSSILS; scientifically arranged. Price, 300l. guineas. Apply to Professor TENNANT, F.R.G.S., 149, Strand, London, who has also elementary collections at 2, 5, 10, 20, to 100 guineas each.

IMPERIAL OTTOMAN MINING COMPANY (LIMITED).—NOTICE TO SHARE WARRANT HOLDERS.

The directors of this company propose (as the additional capital required to carry on the works at Peldit upon the following terms:— £5000 of debentures for sums of £5 and upwards for two years, renewable for three years more at the option of the board, bearing interest at 10 per cent. per annum, payable quarterly, commencing on the 1st of October next. For each £1 subscribed one fully-paid ordinary share of £1 will be given as bonus. (Thus, a subscriber of a £5 debenture would receive five fully-paid shares therewith.) These terms are offered in the first place to the shareholders in the company on 7, and will remain open to them until the 30th inst., when, if not fully subscribed, they will be offered to the general public. Should the applications from the shareholders exceed the £5000 required, the debentures and shares will be allotted pro rata to the holding of each applicant.

Forms of application may be obtained at the company's office, which must be accompanied by a deposit of 10s. in £1 upon amount applied for, and the remainder on allotment, payable at the company's bankers, Messrs. Roberts, Lubbock, and Co., Lombard-street.

Applicants must leave their names and scrip at the office of the company, which will be returned to them on allotment. By order, C. W. CARPENTER, Secretary.

46, Moorgate-street, September 5, 1871.

IMPERIAL OTTOMAN MINING COMPANY (LIMITED).—The following Telegram has been received by the Board:—"Pera, 5th September, 1871.—Peldit ore shipped yesterday by steamer Marsden for Liverpool. Bills of lading by this post." (Signed) WILLIAM HARVEY.

NOTICE OF MEETING.

GREAT WESTERN SILVER MINING COMPANY (LIMITED). Notice is hereby given, that the FIRST ANNUAL GENERAL MEETING of the shareholders in the above-named company will be HELD at the Registered Offices of the company, No. 11, Moorgate-street, in the City of London, on TUESDAY, the 19th day of September, 1871, at Two o'clock. By Order of the Board, J. H. THORNTON, Secretary.

11, Moorgate-street, London, E.C., Sept. 7, 1871.

NEW GWYNFYNYDD GOLD MINING COMPANY (LIMITED). APPLICATIONS for the REMAINING DEBENTURE BONDS of £10 each, and bearing 10 per cent. interest, being a first charge on the property of the company, were RECEIVED at the offices of the company, 71, Lord-street, Liverpool, on or before SATURDAY, the 9th September next. CHARLES BESWICK, Secretary.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Aug. 18—Green Hurth	12	£12 12 6	Locke, Blackett, & Co.
26—Minera Union	15	12 6	Adam Eytton.
29—Caldbeck Fells	25½	12 12 0	Patner Lead Co.
— ditto	63½	7 16 0	John Warwick.
— ditto	5½	5 0 0	Locke, Blackett, & Co.
Sept. 1—Minera	100	11 15 0	Patner Lead Co.
— ditto	60	11 15 0	ditto
— ditto	48	11 18 6	Walker, Parker, & Co.
— ditto	100	12 2 6	ditto
— ditto	31	12 2 6	ditto
— ditto	51	12 0 0	ditto

BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Sept. 1—Minera	105	£ 4 8 0	Vivian and Sons.
— ditto	55	4 7 0	ditto
— ditto	55	3 2 0	Richardson & Co.
— ditto	47	3 14 0	Jersey Spelter Co.
6—Talsarc	60	4 3 6	ditto

BLACK TIN.

Date.	Mines.	Tons c. q. lb.	Price p. ton.	Amount.	Purchasers.
Sept. 1—Shelton	6 12 0 3	£77 2 6	£ 509 2 7	Tamar Tin.
— ditto	0 9 3 25	63 0 0	50 8 4	ditto
2—West Godolphin	2 19 3 17	70 15 0	28 17 0	Boltho.
— Pen-an-dren	8 5 2 0	52 0 0	478 11 0	Carvedras.
— Wheal Uny	12 1 19	73 13 4	447 16 0	Penpoll.
— ditto	5 7 0 16	73 13 4	426 15 8	Bisbee.
5—Polbreen	6 17 2 10	83 15 0	555 10 4	Daubuz.

COPPER ORES.

NO SALE on Thursday last or Thursday next. Copper Ores for sale at the Royal Hotel, Truro, on Thursday week—Miner and Parcells.—Devon Great Consols 1374—Marke Valley 330—South Caradon 528—Brookwood 362—West Maria and Fortevic 218—Wheal Friendship 293—East Caradon 195—West Caradon 126—Gunnislake (Chitlers) 122—Franco Consols 29—Virtuous Lady 14—Purran Wheal Virgin 4.—Total, 2596 tons.

Now ready, 12mo., cloth limp, price 2s., postage 3d.

PHYSICAL GEOLOGY:

Partly based on Major-General Portlock's "Rudiments of Geology."

By RALPH TATE, A.L.S., F.G.S., &c.

Illustrated with 50 woodcuts. New volume (173) of Weale's Rudimentary Series.

Now ready, 12mo. volume of Text and 4to volume of Engravings, price 9s. 6d., cloth boards, postage 19d.

MANUAL OF MINING TOOLS:

Comprising their Materials and Manufacture, their Special Uses, Applications, Qualities, and Efficiency.

Illustrated by an Atlas of 235 engravings, drawn to scale.

By WILLIAM MORGANS, Lecturer at the Bristol School of Mines.

London: LOCKWOOD and Co., 7, Stationers' Hall-court, E.C.

Notices to Correspondents.

* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

MINING IN IRELAND.—It appears to be an established fact that most of the paying mines are those which have been re-worked, and that the Old Cappagh Mine, County Cork, is not likely to prove an exception to the rule.

TELEGRAPHIC CODE FOR MINING COMPANIES.—An enquiry was sometime since made in an advertisement in the *Mining Journal* for a code suitable for transmitting messages relating to the progress made in mining and milling operations with accuracy and brevity combined, but I cannot now find the advertisement. Now, there would be no difficulty in transmitting, either openly or in cipher, all the working details contained in a mine report, of the length published in the *Journal*, in a telegram of 100 letters, and it would certainly be worth as many pounds to any of the British companies engaged in mining enterprise in the distant States of America to possess the means of obtaining comparatively detailed reports of the workings up to only the day previously. The only question is, whether it would pay to prepare the code.—CRYPTOGRAPHER.

VERMILLION, &c.—"D. P."—The present quotation for vermilion is 2s. 11½d., less 2½ per cent. for cash in 14 days; and for oxide of cobalt, 13s. 6d., same discount and terms. For nickel a quotation cannot at present be obtained.

BISMUTH.—"P." (North Wales).—The value of bismuth is about 10s. or 12s. per hundredweight. Less than 10 tons a year would probably supply the entire European and American markets, even including the quantity consumed in the manufacture of pearl white to beautify faded women. However, if it were cheaper it could, no doubt, be more extensively used, as it is used in pewter's solder, and has been successfully employed as a mordant in dyeing.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, SEPTEMBER 9, 1871.

THE STATE OF TRADE—RAILWAY TRAFFIC.

Most of the principal lines of the kingdom have just held their half-yearly meetings, and it must be a source of considerable satisfaction to all engaged in the trade and commerce of the nation to see that almost every chairman and directorate had to announce a better dividend to their shareholders than for several years past. Perhaps there is no better criterion for judging of the state of trade than the various traffic returns of the large and important lines which now traverse every part of the country, carrying and circulating the wealth of our merchant princes, our large manufacturers, our colliery proprietors, and our many commercial industries from one extremity to the other. What this "nation of shopkeepers," as we were once sarcastically called, would now do without its "iron horse" and its iron rails is a question which we need not now stop to discuss; suffice it to say that the whole traffic of the country is now mainly dependent upon the expedition with which the goods are carried, the rates charged, and the facilities placed at the command of the manufacturers and producers by the railway companies for the expansion of trade and the development of the many resources of manufacture which are constantly springing up around us. In fact, so intimate is the connection between the trade and commerce of the kingdom and railway transit, that in very many instances large manufactures are incapable of proper expansion, and minerals are altogether unproductive in the working, on account of the heavy expenses charged for the transit of the goods to the place of sale, or the port for embarkation.

The question naturally meets us at the very outset, whether our railways really afford adequate facilities for the expansion of trade and commerce, and whether the freights are as low as consistent with due regard to the requirements of commerce and the interests of the shareholders? We unhesitatingly assert that in both these essentials there is great room for improvement. We maintain that our railways are not so economically and profitably worked in themselves as they could be; and, on the other hand, the rates charged for the carriage of goods are almost prohibitory to the colliery proprietor, and inimical to the true interests of the railway shareholders. This might be considered a strong assertion to make, but a little reasoning will, we think, show that our statement is based upon facts which cannot be easily controverted.

Some few years since papers were published relative to the merits of the bogie engine and system of traction, and railway traffic generally, and some most striking revelations were certainly made. One of the most startling was that the average dead weight in passenger trains was no less than 95 per cent., and in goods trains 70 per cent. It thus follows that the paying proportion of passenger trains is but 5 per cent., and of goods trains 30 per cent. These figures have never, to our knowledge, been contradicted by any railway authority, and therefore we take it for granted that they are substantially correct. On common roads at least 50 per cent. of the dead weight is paying weight in passenger loads, and from 70 to 80 per cent. is paying weight in regard to goods. Here, then, is one great and important point, requiring the serious attention of railway engineers and managers, and, at the same time, one of great moment to large manufacturers and colliery proprietors. In respect of this paying percentage of the passengers and goods carried on our railways, very little improvement has been effected for many years past, but we cannot take it for granted that engineering science has arrived at its ultimatum in regard to our railways, and we have every faith in the genius and skill of our railway engineers to justify us in the belief that shortly some means will be discovered which shall vastly increase the paying ratio of all our passenger and goods trains, to the mutual advantage of all concerned. There are several matters quietly but surely pushing things forward in the direction we now indicate. The severe competition which now exists (and daily increasing) between sea-borne and rail-borne carriage for minerals, and the introduction of cheap tram railways, point to the time when railway directors, managers, and engineers must look this vastly important question of the paying proportion of trains in the face, and devise some means of traction which shall give more profitable returns. It follows, as a natural sequence, that if the paying percentage of our goods and mineral trains were materially increased the present high freights could be proportionately reduced; and we contend that a substantial reduction of railway freights, more especially with respect to the carriage of coals, would lead to a much larger output from the various collieries, to the mutual advantage of the proprietors on the one hand, and railway shareholders on the other.

There could be little difficulty in showing that "mineral lines" are far better paying lines, as a whole, than passenger lines. The statement of Sir DANIEL GUTH, M.P., at the last meeting of the Great Western Railway, to the effect that that company had lost no less than 30,000*l.* revenue during two months' colliers' strike in South Wales, shows to what large extent the traffic of that line depends upon its mineral trade. In fact, the South Wales mineral basin has been appropriately termed the "back-bone" of the Great Western system; and yet, with what indifference is this mineral traffic regarded, not only by the Great Western, but by the other large mineral carriage lines. Is not one of the greatest difficulties which the colliery proprietor has to contend with the carriage of the coal to the selling mart or port of embarkation? Are not the freights simply prohibitory in many instances, and are not thousands of acres of minerals now lying unworked for the lack of adequate railway

facilities? Take, for example, the district we have already quoted, that of South Wales. In round numbers, about ten millions of tons are raised there annually, but of this by far the greater part is locally consumed by the ironworks and other manufactures, the total quantity exported from the various ports being only about 3,500,000 tons; but will anybody knowing the district hesitate to say that that quantity could be trebled or quadrupled in a few years with proper railway facilities and workable freights? It is gratifying to see that the new management of the Great Western board have at length successfully piloted the vessel out of the many storms it had to encounter, and that now a higher dividend is declared than has been the case for very many years past. Having surmounted the enormous monetary difficulties with which they had to contend, the directors have at length turned their attention to the improvement of their property, and are now taking steps to give better facilities to colliery proprietors and manufacturers, and are supplying that great desideratum which has been so long asked for—the narrow gauge throughout the South Wales district. We regard this step as one of wise economy on the part of the Great Western, and think the time not far distant when the shareholders of the line, in conjunction with the colliery proprietors of the district, will endorse the policy of the board as a most remunerative expenditure.

Whilst we gladly note the improvement in the value of railway property as indicative of the general prosperity of the country, we would strongly advocate, for the interests of the railway shareholders themselves, as well as for the sake of the colliery proprietors, a substantial reduction in the mileage of minerals. We would not for a moment recommend anything like such a suicidal competition as that lately adopted by the Great Northern and the Midland, but we say again that the very heavy rates charged for the carriage of minerals hangs like a heavy dead weight upon the trade, making it almost impossible to expand and develop itself, as it otherwise would if a more equitable scale were adopted. It has been computed by competent authorities that 4*d.* per ton per mile for the carriage of coal would yield most handsome profit to the railway companies. In many instances it is now more than double, which upon long distances makes the charge so excessively high as to seriously check the trade. Whether 4*d.* per ton per mile would or would not pay a fair profit to the railway shareholders we are not in a position to assert, but there need be no difficulty in settling the point definitely and amicably. A friendly conference of railway directors in connection with the chief mineral lines of the kingdom could amicably settle the rate of tariff in a short time, and if they would adopt a sound line of policy they would not hesitate in making a substantial reduction in carriage rates, and we guarantee that if such were carried out they would soon find such an expansion of trade as would much more than cover any loss sustained by a reduction of charges, and would find that the dividends would go on increasing, and their property be, consequently, vastly enhanced in value. The better dividends declared at the recent half-yearly meetings show clearly increasing commercial prosperity, but a reduction of charges upon the carriage of minerals would give another stimulus to colliery proprietors and railway enterprise, alike advantageous to both.

THE IRON AND STEEL INSTITUTE.

The continued prosperity of this association of iron and steel manufacturers and others, as evidenced in the steady accession of members at all of its meetings, bodes most satisfactorily for the future of the great industry upon which it is only trite to say that England's future greatness mainly depends. The record in the Supplement to last week's *Journal* of the conspicuous addition to the former muster-roll demonstrates the earnestness with which the producers and manipulators of our useful metals are now pursuing their vocation. This earnestness looks not merely to the prosperity of one district, but of all the districts; for in this association the common weal of the whole is sought after. With only rare exceptions, the day has gone by when traders of the class to which we refer set a seal upon their works' gates; or the men of one district look with suspicion upon the visit of the representatives of another. It is not, therefore, to be recorded with "Mirabile dictu!" that, whether in South Wales or South Staffordshire, on anywhere else, the Iron and Steel Institute should be welcomed with every possible heartiness, when the members go—as they have just gone to the last-mentioned centre—not only to read and discuss papers affecting their common calling, but also to carefully examine the methods of production adopted therein. On the welcome that the Institute received in the Midlands we will not, therefore, dwell further than to repeat here that it merited the recognition which it received, as we reported last week, from the President of the Institute, Mr. BESSEMER, who said that when he remembered the cordial reception which the Institute had received, and that Lord DUDLEY had left the breezy moors of Scotland, and had come to dusty, grimy, money-making Birmingham, in order to meet the Institute, he could not but return to his lordship and the South Staffordshire ironmasters, on behalf of the Institute, his warmest thanks.

But the prosperity of the Iron and Steel Institute is shown in something more than increasing numbers, and the great goodwill that it continues to have manifested towards it. The business it transacts evidences a vigour of grasp that must inevitably issue in wide-spread benefit. What, for instance, is better calculated to impress men of other districts with the mineral capabilities of the Birmingham district than the paper with which Mr. HENRY JOHNSON opened the business of the first sitting at Dudley? Men who knew the basin listened to it with the interest of those who could follow the author over every yard of the ground that he sketched, and who, moreover, if it had been necessary that they should speak, would have endorsed all his views; and strangers heard with the conviction strengthening to the close that much wealth yet remains to the persistent and intelligently-directed explorer of the border lands between Staffordshire and Warwickshire, and Staffordshire and Shropshire in particular. The faith of their own convictions as to the former, Mr. JOHNSON and his fellow-engineers of the South Staffordshire and East Worcestershire Institute are exemplifying in their Sandwell sinkings. We share in the regret of the author of the paper that as to the former anything should have happened to check the ardour with which leading members of the South Midland Institute of Mining Engineers would have given practical illustration of their views. The trade patriotism of those members of the Institute who are sometimes business competitors with the ironmasters of South Staffordshire must have occasioned them to rejoice, as we rejoice that the expectations of the men who have a knowledge of the district from actual working, as well as from scientific investigation, have received the powerful corroboration of the Coal Commission. The magnitude of the question of coal beneath the Permians and the New Red Sandstone in the localities indicated appealed with emphasis to the meeting when Mr. JOHNSON said that the hopeful but unproved region comprised an area six times that of the proved portion of the South Staffordshire basin.

Nor is the iron trade interested alone in the discovery of new sources of supply of fuel. Its economy is to them a subject only second in importance to wider known resources. Mr. BELL put it correctly when he said that the economy of fuel was the great question of the day; and, as the ironmakers are the largest consumers, the country will hail with undissembled satisfaction anything that the ironmaker can do to make the supplies we know of last as long as possible. Good speed we all desire may accompany the experiments that are being conducted in Middlesbrough, in Scotland, in Shropshire, and elsewhere, with a view to solve this problem in the operation of smelting ironstone. The determination with which the first-named district has set about the task was convincingly shown in the paper of Mr. GJERS, accompanied, as it was, by very telling illustrative diagrams. These showed the outlines, sketched to scale, of all the furnaces that have been put up in Cleveland since the trade have begun to believe that the old 48-foot furnaces are not the most economical. Nearly 50 outlines were shown. They were the furnaces the list of which we gave in the last *Journal*, with Mr. GJERS' paper. The author of the paper showed, as he proceeded, what were the results in the matter of economy of fuel and excellency of product that followed upon every alteration. The past shows some foolish rivalry among owners of furnaces in respect of magnitude. To this, however, an end has now nearly come, and Mr. GJERS' paper will go far

to bring about that result. There must be a due proportion between the height and the diameter, and that proportion is now almost settled in relation to furnaces smelting the ordinary Cleveland stone; but there must be modifications, adapting the dimensions of the furnaces to other ores used, in part or in whole, in the making up of the charge. All these and many other points affecting the economical use of our nation's priceless stores of mineral fuel must continue to occupy the attention of the Iron and Steel Institute of Great Britain. From the thoroughness with which its investigations already made have been conducted, it is fair to augur much future success. Of all this the most recent encouragement is the action which the Institute has made up its mind to take in testing the capabilities for use in Great Britain of DANKS's rotary puddling furnace—a subject which, because of its significance as affecting the future of the finished department of our iron industry, we have reserved for discussion in a separate article next week.

INDUSTRIAL PROGRESS IN BRAZIL.

By "progress" in these days may be inferred the advance which nations make in the arts of peace, the utilisation of their resources, and the accumulation of wealth. Brazil is no laggard in the great industrial race; and ever since she closed her severe struggle with the despotic dictator LOPEZ, in Paraguay, she has been extending and accelerating her efforts to make the best of her natural endowments. One of the latest Brazilian projections is the South Brazilian Railway, with a capital of 1,300,000*l.* in 130,000 shares, of 10*l.* each. The line would connect the port of Rio Grande with the great coal field in the Candiota Valley, in the province of Sao Pedro do Rio Grande do Sul; the line would be 173 miles in length, and it would be carried through an easy and comparatively populous country. The undertaking is promoted by the important London and Paris banking firm of Bischoffsheim and Goldschmidt, which is largely identified with railway movements, and which is also associated with coal mining enterprise in Belgium. It is clear that if coal is made readily upon the spot for Brazilian consumption, a new era will be opened out in Brazilian history. As it is, there are symptoms that Brazil is approaching a greater independence in certain matters than she has ever before acquired. When Brazil first essayed a few railways, she came to England for ideas and capital, and she was content to pay the swinging interest of 7 per cent. upon such moneys as Englishmen were prepared to advance to her. This was near the time when Brazil, hampered with her great struggle with LOPEZ, was fain to issue 5 per cent. Government Bonds at the low rate of 74. But the large sums poured into Brazil for cotton in 1863, 1864, 1865, and 1866 enabled Brazil to tide over the Paraguayan war with comparative ease, so far as the pecuniary aspects of the conflict were concerned; and since the struggle closed, Brazilian credit has so rapidly and so greatly revived that the Brazilian Government seems now disposed to go into the railway business upon its own account, and a Bill authorising the purchase of the Anglo-Brazilian lines upon fair and equitable terms has passed the Brazilian Chambers. The details of the measure are not yet finally worked out, but one thing seems tolerably certain—that as at present advised, and as at present circumstances, Brazil will give no more 7 per cent. railway guarantees to English capitalists, and will even endeavour, in some just and honest fashion, to relieve herself of the guarantees to which she is already committed.

There is nothing in all this to cause, however, any uneasiness to the English iron trade. On the contrary, the more readily Brazil can raise capital for railway purposes, and the less burthen railways are to her Treasury when they are made, the more likely she is to proceed freely with such important undertakings. Brazil has even now, through the prosecution of the Anglo-Brazilian guaranteed lines, been a good customer for British railway iron; but Brazil is a country of such enormous extent that she has ample room for thousands of miles of more railways, and more railways she, undoubtedly, will have as population accumulates upon her soil, and as she finds it practicable to carry out railways at a reasonable rate. Although there is a prospect of Brazilian coal being worked, it does not appear probable that much will be made for some time of Brazilian metallurgy; and although Brazil is less likely to come to England for money for railways, she is still tolerably certain to be glad to import English rails, English locomotives, and general English railway material. The recent visit of the Emperor of Brazil to England, and the life which he led in London and the great English cities, show the general bent of his Majesty's mind. It would be well if every other country had such a Sovereign at the head of its affairs. While not insensible to the elegancies and splendour of modern European fashionable life, the tendency of his Majesty's thoughts and aspirations are eminently practical. He wishes by every legitimate means to make Brazil a great empire, and, as far as climatic and other circumstances will permit, to give to Brazil something of the freedom and wealth of England. Liberty and industry—these are the main-springs, with the blessing of God, of English prosperity and power; and it is liberty and industry which the Emperor of Brazil wishes to develop in the great country over which he has presided with such honour to himself and such benefit to his subjects. And liberty and industry will ensure further and further progress in Brazil.

COAL AND IRON IN BRITISH AMERICA.—The activity which now characterises affairs in the Dominion of Canada presents, of course, many points of interest to the coal and iron trades. A good proof of the superior quality of Nova Scotian iron has been afforded in the repetition of an order from Birkenhead to the Acadia Iron Company for 500 car wheels. The coal trade in Cape Breton is improving. Mines which have been closed for years have recently been sold and re-opened. A railway which is now being constructed is one cause of the gratifying change. On the 8th ult. the manager of the Glasgow and Cape Breton Coal and Railway Company reported that the slopes driven on the coal at the Reserve were down 110 ft. and 90 ft. respectively. The railway, the manager added, was being rapidly pushed on, and should it be available for traffic as far as the Reserve during November next he would be in a position to ship a dozen cargoes, and to supply Sydney with from 2000 to 3000 tons of household coal. Surveys for the great Canadian Pacific Railway are being continued; the length of this line will not be less than 2800 miles, and it will, of course, absorb a very great amount of railway iron.

COAL-CUTTING BY MACHINERY.—It is gratifying to learn that the merits of the coal-cutting machinery which has been so long in successful operation at the West Ardsley Colliery, near Leeds, are at last becoming more extensively recognised, and that orders are now being received from various quarters both in this country and abroad. From the gradually increasing difficulty of obtaining cheap labour for colliery and mining operations, the introduction of machinery for coal-cutting must be of the utmost possible importance to the coalowners of all countries; and from the large amount of trouble and expense which Messrs. FIRTH have incurred they have entitled themselves to the thanks of all connected with the trade.

MESSRS. HAYWARD TYLER AND CO'S STEAM PUMPING MACHINERY.—This well-known firm have lately put up one of their patent pumping-engines, of which we have already had occasion to speak favourably, in the Trimdon Grange Colliery, near Durham, belonging to Mr. R. FORSTER, Ferryhill. The dimensions are as follows:—Diameter of steam cylinder, 40 in.; diameter of plungers, 10 in.; stroke, 4 ft. It is placed in the main seam, 60 fms. down, and 50 yards from shaft, and is raising the water to bank. The steam is supplied by boilers on the surface, conveyed down the upcast-shaft. We hope soon to be able to lay before our readers a full description of these pumping-engines, with illustrations.

IMPROVEMENTS IN GOLD WASHING AND AMALGAMATING.—Mr. CHARLES COLLOM, the inventor and patentee of the Patent Ore Dressing Machine, known by his name, has just completed a new patent for improvement upon his already successful apparatus. It consists in dividing the table into two or more concentric circles, each by preference arranged at different angles, to suit the requirements of the stuff as it classifies in passing over the table. Also, by this arrangement he economises the water to a considerable extent, as the necessity of washing the head of the deposit over the "tail" of the table is avoided, it being taken up in a launder and carried direct to its appointed receiver. This patent also includes the

tions claimed by Mr. Collom in his foreign patents, and which more particularly relates to the treatment of auriferous matters and metallic silver, and which is an arrangement of channels or grooves in the table, the bed of which is copper or other suitable metal, which is treated with acid, to make the mercury with which they are charged adhere to, absorb, and retain the particles of gold which they contained in the matters under treatment. The quicksilver, when sufficiently charged, is removed and treated in the ordinary way. Mr. Collom's apparatus has proved in practical working efficient to prevent the floating away on the surface of the water the fine particles which have become flattened and dry on one side; and he asserts that with matters containing less than $\frac{1}{4}$ oz. of gold to the ton he can pay handsome profits with the use of his machine.

IMPROVEMENTS IN COAL-CUTTING.

BY MR. W. HOOLE CHAMBERS.*

The number of patents which have been taken out for coal-cutting machines, and in connection with them, amounts, I believe, to considerably over 300. One great reason of failure was the employment of a motive-power which was neither economical nor beneficial. In a great number of cases the varying hardness of the holing, the changes in the nature of the roof, floor, &c., the various heights which the holing required to be in the seam of coal, the different depths of undercut required in various seams of coal in order to bring down the coal to advantage, and the necessity of having a machine which from one model could cope with all these various difficulties, have combined to prevent the success of many machines which had intrinsic value for one or other of these purposes, but which when applied to overcome others has signally failed. The motive-power best to be employed in coal-cutting machinery will, I believe, be acknowledged by all to be compressed air. It is easily procured; it is safe in use; the air is discharged into the mine fresh and pure at the working face; the average amount of air discharged by one of these machines will be 120 cubic feet per minute.

It is not my intention in this paper to describe the machinery fully, as this has frequently been done, but briefly to notice some of the recent improvements which have brought the machine from one which had a substratum of excellence, but which by itself must necessarily have failed, to one which is a decided success. They are as follows:—1st. A solid forged frame to contain the machine, instead of a rivetted one. This secures stability, and far less necessity for repairs.—2. Connecting-rods, instead of bevel gearing, for propelling the machine forwards. A much stronger and heavier machine can thus be made, and the attendant has much greater control over the machine.—3. The double-headed pick, having two or more cutting-blades on one shaft. This is a great advantage in coals which are liable to crush off the face, or where the roof is tender, as by going once over the face a depth of from 3 ft. 3 in. to 3 ft. 6 in. can be cut, which is quite as much as some coals will allow.—4. The curved pick, by which means the deeper the cut the less back room from the face is required in which to work the machine; thus, when cutting to a depth of 5 ft., only 3 ft. of back-stroke is required for the machine.—5. The successful application of loose points to the pick, perhaps the greatest improvement of all. Specification of Samuel Firth, No. 943, 1869, claims a loose point by preference, having a circular taper cottered into a socket on the pick-shaft, against a cushion of India-rubber or other suitable material.

Having thus briefly noticed the improvements lately made, I beg leave to bring before your notice the following table of experiments which were made at the Tingley Collieries of the West Ardsley Coal and Iron Company, on June 8 and 9 last:—

No.	Name of Coal.	Nature of Experiment.	Distance, Yards.	Time, H. M.	Length, Ft. In.	Area, Sq. Yds. per hour.	Per Day of 9 hours.	Nature of Holing and Remarks.
1	Middleton main ..	Single pick ...	10	13 10	2 3	20	180	{ Usual bordway working, worth 7d.to 9d. per hour.
1	" ..	ditto	10	17 34	1 0			
1	" ..	Removing machine ..	9	0 0	—			
2	" ..	Double-headed pick ..	10	17 50	3 2	55	315	{ Very hard holing coal, working downward, without any weight on.
3	" ..	Single ditto ..	5	8 5	2 3			
3	" ..	Removing machine ..	10	25 —	—			
3	" ..	Double-headed pick ..	2	9 10	4 0	13	117	{ ditto
4	" ..	Single ditto ..	2	25 0	3 3			
4	" ..	Removing machine ..	5	16 0	5 4			
5	" ..	No. 3 ex.	27	40 0	—	12	108	{ ditto
5	" ..	Single pick	5	17 0	5 0			
6	" ..	No. 4 ex.	25	0 0	—	13	117	{ ditto
7	Little coal	Double-headed pick ..	10	10 0	—			
7	Little coal	Double-headed pick ..	10	10 0	—	12	135	{ Medium between 1 and 3, standing some time, and much dirt fall.
8	Stone coal..	ditto	5	23 0	3 0	13	117	{ Very hard stone and dirt intermixed.
9	" ..	ditto	5	37 50	3 0	8	72	{ ditto

In experiment No. 1, which was in the Middleton Main, or Silkstone coal, the bank was working bordway; it was 62 yards long, and about one mile from the pit bottom. The holing is done in the Baring coal in this seam, which is 1 ft. 3 in. from the floor. Experiments 3, 4, 5, and 6 are in the Middleton, or Silkstone coal, working endway; the bank having only just been opened the coal is very hard. No. 5 experiment is over the same ground as Nos. 3, and 6 as No. 4; the steadiness of the machine on the road, and the beautiful regularity of the stroke in these two experiments were delightful to see.

In the Little coal the holing is done close to the floor, the bank is working bordway of the coal, and a 3-ft. fall is as much as this coal will allow.

In the Stone coal the holing is done in the stone and dirt between two seams of Cannel coal; this was by far the hardest we encountered. Some idea may be gathered of the hardness when I state that on an average it required 19 blows of the pick in the same spot before the full depth was reached, and sometimes as many as 21 and 22. It is far too hard to be done by hand-labour, but is the best part in the seam in which to hole.

We have before us five machines working in three different seams of coal, in one of which we have two species of work, all of which machines are doing well. The hardness of holing varies from comparatively easy holing, as in the Middleton or Silkstone coal, working bordway, to holing too hard to be done by hand, as in the Stone coal. This machine will, therefore, adapt itself to any hard coal of holing; it can also hole at any height in the seam of coal which is requisite by means of a false bottom.

In the Middleton coal the holing is 1 ft. 3 in. from the floor, in the Stone coal about 5 in., and in the Little coal on the floor, and you have equal stability in either case. It can work in any seam of coal where 2 ft. of height can be secured, and only requires 3 ft. of room from the face in which to work; this is most remarkable where the depth of holing was 5 ft. 4 in., and only 3 ft. of room from the face required.

I would here briefly direct your attention to the reasons why, in many cases, where formerly powder was required to bring down the coal by machine holing none is required. First, the weight of coal is left on by machine holing at the face, whereas by hand holing it is at least taken away at this point. Not only is this the case, but the line of gravity of the block holed is by machine holing brought much further forwards in the block of coal holed. By these two forces combined, if we take a block of coal 100 yards long and 3 ft. high, I reckon the power of separation will be increased by at least 40 tons, thus giving us an immense increase in the natural tendency of the coal holed to separate itself from the solid coal.

Before quitting the subject of the advantages of holing by machinery, I would point out those which are gained by the workmen. In the first place, the hardest portion of their work is taken in hand and successfully done for them; but what I regard as more important than the above is the immunity from accident from falls of coal which is offered. In the position which a man occupies whilst working the machine he is brought out of the groove which in hand holing he has to work under, and where he has neither inclination nor opportunity for examining the changes constantly taking place along the face of the coal. He can see in a moment any indication of the coal giving way, and is in such a position that he can easily get out of the way in such a case. The numerous accidents which

occur to men whilst holing from falls of coal stamps this as a great advantage. The average length of life among our colliers is very short; no doubt this is partially due to the atmosphere they breathe being so thickly impregnated with coal dust, and partially to the cramped postures which have to be assumed in holing, sometimes for hours together. Immunity from the last is, as will be easily seen, ensured by the machine under notice. The exhaust air is also so arranged that it blows the dust created in holing away from the man who works the machine, leaving him in an atmosphere comparatively pure. You will see, then, that the advantage is not all on the side of the master, but is shared by those whom it is always our duty to consider in weighing the gains and losses of any important alteration like the present in the system and mode of working our coal; I mean the working colliers.

I have endeavoured to lay before you in the foregoing paper results which have come under my personal observation. I would not be understood to say that this is the best machine in existence, or that can possibly be produced, but I can say without fear of contradiction that every part of the machine is well and carefully considered, that strength is applied just where it is wanted, that the results obtained in the length of holing are better than I anticipated, and quite sufficient to prove it a decided success, and that no other machine has yet come under my notice which has succeeded so well as the above. In conclusion, I call upon you to give this subject your earnest consideration, for I hold that all these experiments, which are of so much vital importance to the coal trade in general, demand our encouragement; and that where we find such patient study, such determination to overcome all difficulties, and such unremitting exertions as must have characterised the patentees of the machine under notice to have brought it from what it once was to its present state of perfection, we are called upon, having the interests of mining at heart, to give every aid in our power to the successful application of that which we cannot but feel is absolutely necessary to the full and cheap development of our coal fields.

ANOTHER FEARFUL EXPLOSION AT WIGAN.

The Wigan portion of the Lancashire coal field seems destined to continue to supply fearful illustrations of the terrible hazard with which the working of certain coal seams is attended. The fatal seam in Lancashire is the Nine-feet. In the past four years shocking issues have accompanied the working of that measure. Need we name the Queen Pit, Haydock; the Brynn Colliery, Ashton-in-Mackerfield; the Low Hall Pit, Hindley-green. The Haydock Colliery explosion happened on July 21, 1869, and it resulted in the death of 59 people. It is now, however, our painful duty to record an explosion in the same district that has resulted in more terrible consequences than attended either of the foregoing. The catastrophe occurred on Wednesday last, at the Moss Colliery of Messrs. Pearson and Knowles, at Brynn Moss, in the township of Ince, and 70 lives have been lost. The Moss pits, which are within a short distance of the Wigan Cemetery, and in close proximity to the new works of the Dallam (Warrington) Iron Company, have been worked only a few years. The seams worked are the Nine-feet, about 48 yards from the surface, and the Cannel, which is some hundred yards lower. Preparations were being made for the working of the Arley coal, and for some time past sinkers have been employed in the upcast working with the view of reaching that seam. The coal from the Nine-feet and the Cannel seams was drawn to the surface by the downcast shaft. The disaster of Wednesday happened in the Nine-feet seam. Messrs. Pearson and Knowles have never before enjoyed a singular immunity from such calamities, and the fact has been attributed, with apparent justice, to the careful management. No expense seems to have been spared by them in doing that which was calculated to ensure the safety of their employees. Although everything that skill and science could accomplish to render their working secure has been done, yet it must be admitted that the miners go down to work with their lives literally in their hands. The men had, however, great confidence in the management. The underlooker, named Prescott, a very trustworthy man, and who was one of the injured, said that there were no indications of gas, and that he would have gone with perfect confidence a few minutes before the explosion over every part of the workings with an open torch. Mr. Pickard, the miners' agent, is also understood to have thought highly of the pit, the manner in which it was laid out, and its daily management, in respect of the safety of the men.

The depth of the pit is about 70 yards. Below the Nine-feet, which travels north and south, is the Cannel seam, which is some hundred yards below. Both these seams are worked by the downcast shaft, and the owners are extending the upcast workings to the Arley seam, which lies to a still greater depth. A party of sinkers were at work at the time in the upcast-shaft. The explosion occurred at 11 o'clock in the forenoon, 63 men and boys being employed in the Nine feet level, 50 in the Cannel seam, besides six sinkers. Three of these sinkers were in the act of descending the upcast-shaft to J in their fellows at the bottom, when from the downcast shaft, came that terrible sound, like the discharge of a cannon, which told the fearful tale of the occurrence of another explosion. There followed almost immediately a fearful discharge of soot and smoke from the upcast, which hung like a pall over the surrounding district. At the downcast-shaft the cage, which was standing on a raised platform, was hurled from its position, and the banksman had a most narrow escape, whilst at the second shaft the gearing sufficed so complete a wreck that the browman, Oaks, is at a loss to know how he escaped from the wreck with his life. As it was very short time, however, before the men were rescued, and the extent of the mischief; and Mr. John Pearson, one of the proprietors of the colliery, and the managers of several adjacent collieries, including Mr. Bryham, of Rose Bridge; Mr. Gilroy, of Ince Hall; Mr. Watkin, of Pemberton; and Mr. W. Smethurst, of Brynn, were soon upon the spot, conferring as to how the sufferers could be rescued. Mr. Higson, the Government Inspector of Mines, was fortunately in Wigan, together with Mr. Higson, mining engineer, his son, and they reached the pit soon after noon. Mr. Pickard, the miners' agent, who lived at Ince, was also present, and took an active part in the explorations.

Part of the machinery of the upcast shaft, the winding apparatus was repaired, so that the "hoppet" might be drawn up, which was still hanging in the shaft. It took over an hour to accomplish this work. When at last the cage was brought to the surface many anxious eyes were directed towards it, as a faint hope was entertained that the sinkers might be still in it. It was, however, empty, and no further doubt could be entertained of the fate of the men. A cap which was found in the gearing above the shaft was supposed to have belonged to one of these men. The "hoppet" was then lowered, and the cage was drawn up, and three men as far as the Cannel seam. After a short interval the cage was raised, and it brought back, and amid the heartless silence of the spectators, five colliers, who announced, to the relief of some of the anxious relatives who crowded the bank, that all was safe in the Cannel seam, but that the explosion had occurred in the "Nine feet." The 50 men who worked in the Cannel seam were quickly brought to bank, and everyone's energies were then directed to the establishment of a communication by means of the downcast shaft, by which means alone the Nine-feet could be reached. A short distance above the Nine-feet is the Four-feet. It was believed that there were no men in this part of the colliery at the time of the explosion, but when the first exploring party descended they found at the mouth of the underlooker, Henry Prescott, the furnaceman, and a bricksetter. These were all alive, and were at once sent to the surface. The explorers then descended to the Nine-feet, where a terrible scene was presented. Here the full force of the explosion appeared to have taken place. Timbers and broken corves were strewn about, and here and there lay the dead, the majority of whom were most fearfully mutilated by the scathing force of the fire-damp and the violence of the projectiles which were hurled along the canways. The living were crying bitterly for water, which, with other restoratives, was supplied to them by the willing hands of the brave men who were risking their lives to save them. The exploring party was in charge of Mr. J. H. Bryham, son of the manager of Rose Bridge Colliery, and Mr. William Pickard, miners' agent. The living were first sent, and one of the men, in the agonies of his dying struggles, nearly threw himself out of the hoppet. His agony was so acute that it took four men to hold him. He died shortly after he got to the surface. Mr. Pickard, on coming to the surface, reported that the pit was on fire in both levels of the Nine-feet, but especially in the south level. It was then determined to send down a number of extinguishers and a supply of buckets to quench the fire. Up to this time ten men had been brought up, seven from the Nine feet and three from the Four-feet, one of the former having died.

Everything appeared to be going on favourably for a further examination of the workings, when, shortly after three o'clock, those who were standing on the bank noticed a cessation of the smoke in the upcast shaft, followed by gusts of wind, which indicated that another explosion had occurred. Great fears were felt for the safety of the exploring party under Mr. John Bryham, consisting of about ten persons. The cage was in the shaft at the time, and it is needless to add that the winding was carried on as quickly as safety would permit. The excitement was now most intense. The cage, amidst a suspense in which minutes seemed like hours, was quickly brought to the surface, but it was not until the third ascent that Mr. Bryham appeared in the hoppet. The entire exploring party reached the surface in safety, but some of them had made some very narrow escapes. They reported that there had been a great many falls of roof, and the blast had overturned everything and extinguished the lights. Mr. Bryham was at the time examining an opening, and he might have been lost if he had not been in company with someone conversant with the workings. A consultation was then held, the gentlemen who took the principal part were Mr. Higson, the Government Inspector, Mr. George Gilroy (Ince-hall), Mr. W. Bryham (Rose-bridge), Mr. Mercer (Park-lane), Mr. Watkin (Pemberton), Mr. John Higson, son of the Government Inspector; Mr. Cross (Cross, Tetley, and Co.), Mr. John Pearson, son of the senior partner in the firm owning the colliery, and Mr. John Bryham. The matter was anxiously debated, and the engineers came to the conclusion that they would allow no more explorers to go down in the pit, as it would be running a serious risk to life. It was felt that there was no chance of any more men being alive in the pit, and it was determined to stop up the downcast shaft in order to extinguish the fire which was now raging in the pit.

The 70 dead, it will have been seen, are made up of the colliers in the Nine-feet, the six sinkers and the man who died so painfully after being brought to the surface.

The disaster is certainly of a very appalling character. Its suddenness is shocking, unrelieved as it was by any chance of escape almost from the commencement, but certainly from the time of the second explosion—that dreaded

addendum to all first explosions. It is cause for satisfaction in the midst of our grief that the second explosion did not aggravate the previous calamity by taking, as it too often does, the lives of some of our most valuable miners. The enquiry that will hereafter take place will be watched with much interest. From what we have before said it does not seem likely that the facts will reveal cause for severe censure upon the managers. It is not, however, to be forgotten that upon the Haydock Colliery explosion, Mr. Higson reported to the Home Secretary, "It is a remarkable instance of the uncertainty of life in a coal mine, on account of the limited number of working places, and of the men employed therein; while it shows, after mature deliberation, the absolute necessity of the best engineering ability and judgment in laying out underground operations in a coal mine." We shall continue to remark upon this Moss Colliery explosion as necessity arises.

THE STOWMARKET GUN-COTTON EXPLOSION.

After a protracted enquiry into the cause of this lamentable occurrence, the jury have returned the following verdict:—

"That the explosion causing the deaths of persons on whom this inquest was held was produced by some person or persons unknown adding sulphuric acid to the gun-cotton subsequent to its passing the tests required by Government. At the same time we consider, from the evidence adduced, that there is no danger in the manufacture of gun cotton in the wet process, but that the drying and storing of gun-cotton should not be allowed near a town. Also, we consider that gun-cotton works should be subject to constant Government inspection."

The *Times*, in its comments on the inquest yesterday, says:—"At an early period of the enquiry one of the managers, who had drawn, perhaps, his conception of probabilities from the 'Battle of Dorking,' communicated to the Court his first conclusion, that some foreign power had employed an emissary to stop the manufacture of a material threatening destruction to continental armadas. Later hypotheses could only suggest the operation of commercial rivalry, for though the Stowmarket factory was the only one of its kind in Great Britain, and, therefore, not exposed to competition, it was open to the obloquy which a monopoly, especially if it can be stigmatised as a Government monopoly, is pretty sure to incur. How far such a conclusion is really probable the public must decide. The finding of the jury seems to imply, though it does not express, the malice of the agent, for the explosion was said to be produced 'by some person or persons unknown adding sulphuric acid to the gun-cotton subsequent to its passing the tests required by Government.' Such an addition made at such a period must have been made maliciously, and the proceeding, in whatever motives originating, may not be inconceivable. At any rate, one result from the enquiry is that gun-cotton is not materially more dangerous than it was supposed to be. The specimen of the manufacture which exploded, or caused the explosion, was an impure specimen, and the impurity, according to the verdict of the jury, was not caused by accident. There remains the supposition of wilfulness, against which, of course, nothing could be proved; but it will certainly be prudent to repeat and extend the experiments which gave such satisfaction last spring. Even if we have nothing to learn in the matter of this invention, it by no means follows that we have nothing to learn."

A Correspondent, writing to us on the subject, says:—"An idea seems to be entertained that the cause of the lamentable explosion at Stowmarket was that some of the gun-cotton had been tampered with, and it is suggested that gun-cotton should be constantly under Government inspection. With the last suggestion I cordially agree, and believe it always has been under Government inspection, as Mr. Abel, the Government chemist, has been actually connected with the works, but it seems to me that one of the first questions that should have been put to Mr. Abel is as to whether his new invention for the combination of nitro-glycerine with gun-cotton was in use at the works, or whether any nitro-glycerine was, to his knowledge, on the premises at the time of the accident? This is a question which the public should require to have answered."

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Sept. 7.—The Iron Trade of North Staffordshire is steady, at the advanced quotations which we reported last week, and the concession made to the ironworkers on the wages question has virtually put an end to the agitations which for some time past have disturbed the labour market in this district. Bars and hoops command a very active enquiry, but there is less doing in rails. The pig-iron makers are all well supplied with orders, and trade prospects in this branch are, as a rule, most encouraging. The Coal Trade is in a satisfactory condition, the demand for household fuel being unusually active for the season. Ironstones are in buoyant request, at firm quotations. Trade is brisk in the Potteries district, both on home and export account. The crate makers are agitating for an advance in wages, and a strike is reported at one of the leading establishments in Stoke.

In South Staffordshire the attempt made last week by the ironmasters to effect a settlement of the wages dispute appears to have been only partially successful. It will be remembered, however, that the advance of 1s. per ton asked by the puddlers was conceded, but the increase of 10 per cent. asked by the millmen and other classes of ironworkers was only granted to the extent of one-half the amount asked. By this arrangement the concession made to the puddlers was certainly more liberal than that made to other classes of ironworkers, and the reason for this is thus explained by the ironmasters. When more than 20 years ago the Thorneycroft scale was adopted, adjusting the rate of wages to the selling price of iron, the basis agreed upon afforded about equal remuneration to the puddler for his labour as to the millman. Since that time, however, the millman's labour has been considerably lightened, and his work facilitated by improvements in machinery, &c.; but the process of puddling remains precisely the same, while the labour is rendered even more arduous and difficult by the inferior qualities of pig-iron which have now to be manipulated compared with those of 20 years ago. The fall in the selling price of iron since that time has been fully 5l. per ton all round, and wages are, in consequence, 5s. per ton lower, or thereabouts, than formerly. This, under the circumstances already referred to, is a very serious matter for the puddlers, but in the case of millmen it is more than compensated by the improved machinery introduced meanwhile. The millmen do not, however, appear to regard the matter in this light, and they are still agitating for an advance equal to that of the puddlers. At a meeting held on Monday, at Great Bridge, after several but temperately worded speeches, the following resolution was unanimously carried:—

"That this meeting, representing the shinglers, rollers, and millmen of South Staffordshire and East Worcestershire, taking into consideration the past custom of the trade with respect to the regulation of the selling price of iron, and the rates of wages, considers that the men are entitled to a 10 per cent. advance on their present rate of wages, and if that amount be not conceded every legitimate means in their power shall be used to secure the same."

One of the delegates subsequently proposed a motion in favour of the establishment of a Court of Arbitration and Conciliation for the iron trade of the district, and this also was carried with great cordiality. In consequence of this agitation business is in a somewhat unsettled condition, makers hesitating to book orders in the uncertainty which prevails in regard to prices, and from present appearances it does not seem likely that a very large number of transactions will have to be reported between this time and the date of the Preliminary Quarterly Meeting. All the pig makers are already full of orders up to that time, and the finished iron-makers, who are indisposed to enter into large contracts, are busy with orders for most descriptions of bars, hoops, strips, rods, and sheets, and will find no difficulty in booking others as they require them. Official quotations, as advanced last Thursday, now stand thus—Common bars, 8l. 10s.; sheets, 10l.; doubles, 11l. 10s.; nail sheets, 12l. 10s.; latten, 13l.; boiler-plates, 10l.; rods, 8l. 10s.; hoops, 9l. 10s.; and other descriptions in proportion. It has been rumoured on 'Change this week that the Brettell-lane Ironworks, near Stourbridge, are about to be purchased by the Corby's Hall New Furnace Company (Limited).

The death of Mr. William Mathews, one of the oldest and most respected members of the South Staffordshire iron trade took place on Saturday, Mr. Mathews, who was in his 75th year, was seized with paralysis while attending the Iron and Steel Institute banquet at Birmingham, on Thursday last, and from that attack he never rallied for a moment, even to the extent of regaining consciousness. Mr. Mathews commenced business life about half a century ago, as a partner with Mr. Finch in the West Bromwich Furnaces, and in 1813 he entered into the possession of the Corby's Hall Furnaces and Works, with the former of which he maintained his connection to the last. His intimate knowledge of the trade, his shrewd judgment, and his singular honour and upright-ness in all business and public transactions, combined to win for him a respect from all classes such as falls to the lot of few to enjoy.

Meetings of the South Midland and the South Staffordshire Institutes of Mining Engineers have been held this week, the former at Wolverhampton and the latter at Dudley. We give elsewhere full reports of the proceedings.

By the recent amendment of the Workshops Regulation Bill over 2000 workshops in the Black Country alone will be placed under Government inspection.

The Dudley Correspondent of the *Wolverhampton Chronicle* writes:—

At the special meeting of the Iron Trade at Birmingham, on Thursday, it was agreed to raise the puddlers' wages to 2s. 6d. per ton, and to advance the rates of other forge and mill workmen's wages 5 per cent. The following will now be the best rates for merchant iron:—Common bars at the works, 8l. 10s.; sheets, 10l.; doubles, 11l. 10s.; nail sheets, 12l. 10s.; latten, 13l.; boiler-plates, 10l.; rods, 8l. 10s.; hoops, 9l. 10s.; and all other sorts in proportion. The demand for merchant iron still keeps brisk, and the mills are working throughout the whole of the district at full employment. The safe in-gathering of the cereal crops will give a further impetus

* Read before the Midland Institute of Mining Engineers.

and agreed to. Mr. BUAR called the attention of the meeting to the Iniquitous operations of the registration under the Trades Union Act.—Mr. SILLICKSTONE moved "That this meeting would recommend that no miners' associations register under the Trades Union Act and the Criminal Amendment Act is repealed." They would further recommend all other Unions to refuse to register." This was seconded by Mr. HUNT, and agreed to.—Mr. BUAR moved "That the coming conference also consider how the miners would best be able to get some of their own representatives into the House of Commons to represent fully their interests. They would, at the same time, respectfully solicit all the Trades Unions in the kingdom to consider this question." This was seconded by Mr. PHILLIPS, in the English, and agreed to. Mr. HUNT said "That there are 29,000 copies of the address, of which there is 15,000 to be in English and 5000 in Welsh. Also, that there be printed 5000 copies of the petition."—This was seconded by Mr. SILLCOCK, and agreed to.—Mr. H. THOMAS moved, "That, as the meeting they had now held was of great importance, there be 5000 copies of the minutes printed for circulation."

immediately."—This was seconded by Mr. YOUNG, and agreed to.—The meeting was concluded by a vote of thanks being tendered to Mr. McDonald.—Mr. McDonald replied by stating that it was his intention now to have some rest, but he felt he could not till a Mines Bill and other measures were obtained.

PUDDLING IRON.—By the invention of Mr. W. ROBINSON, of Old Bailey, furnaces have an oscillating movement imparted to them, for throwing the molten metal from side to side, and thereby mechanically puddle the iron.

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THE CANADIAN OIL WORKS CORPORATION (LIMITED).

ISSUE of 1000 TWELVE PER CENT. FIRST MORTGAGE DEBENTURE BONDS of £100 each, payable to Bearer, secured by a first charge upon nine large productive Oil Wells, Distillery, Machinery, Plant, and 11 Acres of Freehold Oil Lands now in full operation, and yielding an annual profit of upwards of £100,000.

These Mortgage Debenture Bonds of £100 each will bear interest at the rate of 12 per cent. per annum, payable half-yearly at the Bankers in London, the principal being redeemable with a bonus of £10 per bond by ten half-yearly drawings, commencing on the 1st March, 1872, the whole being paid off within a period of five years from that date.

The CANADIAN OIL WORKS CORPORATION (Limited) have authorised Messrs. BLYTH and Co., 17, Gracechurch-street, E.C., to OFFER for SUBSCRIPTION the above-mentioned BONDS. These bonds will be secured by a first charge registered in Canada in favour of trustees for the bondholders upon the whole of the freehold and other property and works of the Corporation. In the allotment of these bonds preference will be given to applications for fully paid-up bonds. In addition to this the allottees of fully paid-up bonds will have the right to an apportionment of one share for each bond on payment of £25 cash, provided an application for such share be forwarded with the letter containing application for the fully paid bonds.

As to the probable value of such shares, it is estimated that the sum available for dividends for the five years until the complete redemption of the bonds, will range from 15 to 10 per cent. per annum, and after that period to 40 per cent. per annum and upwards.

The bonds will be dated the 1st of September, 1871, and carry interest at the rate of 12 per cent. per annum, payable half-yearly, for which coupons will be attached.

The bonds will be issued in London at par, payable as follows:—

£10 on each bond on	Application.
15 " "	Allotment.
15 " "	the 22d September, 1871.
25 " "	the 7th October, 1871.
25 " "	the 23d October, 1871.

The interest at the rate of 12 per cent. per annum will be calculated from the date of the respective payments.

The present net profit derived from the works is already upwards of £100,000 per annum, and as the amount required for the payment of the interest and the redemption of the bonds and the bonus will not exceed the sum of £53,000 per annum, and will gradually diminish, there will be ample funds to meet all requirements, and leave a large surplus for dividend on the share capital.

Before payment of any dividend on the share capital sufficient money will be reserved to pay interest and bonus upon the mortgage debentures for the half-yearly ensuing payment and the proportion of principal to be paid off.

CANADIAN OIL WORKS CORPORATION (LIMITED).

Registered under the Companies Acts of 1862 and 1867

Capital £340,000, in shares of £25 each.

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The Canadian Oilworks Corporation (Limited) is established mainly for taking over and working one of the largest and most complete sets of wells in Canada, together with the distillery, refinery, plant, machinery, effects, etc., etc., freehold estates, and good will appertaining thereto. These freehold estates consist of upwards of 1118 acres of proved oil land.

The wells, nine in number, are among the largest producing wells in the territory. They are now yielding an average supply of above 800 barrels per day. These statements are founded upon the reports of the managers of the wells. See daily forecasts from the Great Western Railway of Canada up to July 17th, and a full report upon the whole property made under the personal direction of Her Britannic Majesty's Consul at Buffalo, by Mr. J. J. Francis, the provincial Government surveyor.

The plant and machinery are reputed to be the most complete for all purposes. They comprise nine steam-engines, from 20 to 50-horse power each, with necessary belts, lift, force, rotary, steam, and other pumps. There are underground, overground, and shipping tanks, capable of holding about 1,200,000 gallons, and there is a complete system of iron tubes direct from the wells to the distillery, to the tanks, and to the shipping station of the Great Western Railway of Canada.

The quality of oil commands in the market a higher price than that obtainable for any other oil in the country.

The distillery, which is at present capable of working over 43,000 gallons of oil per week, is of the most modern, scientific, and economic construction, combining all the improvements suggested by years of experience in all the other distilleries of Canada, and the distillery and refinery works now in progress of erection will increase the present capabilities of treatment to 200,000 gallons per week.

The profits of the distillery which will come into the second half-year's returns are estimated at the sum of \$26,000 (\$416l. 13s. 4d.) thus bringing up the total profit from the present wells to upwards of \$195,000 for the year.

Applications for Mortgage Debenture Bonds, and for the apportioned shares, may be made on the forms accompanying the prospectus, which must be filled up and presented to the bankers of the Corporation.

In the event of no allotment being made the deposit will be returned in full. Full prospectuses and copies of reports, and Forms of Application, may be obtained at the Bankers, and at the offices of the Corporation.

CANADIAN OIL WORKS CORPORATION (LIMITED).—THE SUBSCRIPTION LIST for the TWELVE PER CENT. FIRST MORTGAGE DEBENTURE BONDS will be closed on THURSDAY next for LONDON, and on WEDNESDAY next for COUNTRY APPLICATIONS.

BLYTH AND CO.,

17, Gracechurch-street, London.

GENERAL MINING OFFICES,

BEDFORD FOUNDRY, TAVISTOCK.

CONDUCTED BY

MR. CHARLES F. COLLOM,

MINING ENGINEER, AGENT, AND SURVEYOR.

who undertakes the entire local Management of Mines, including Dripping, making accurate Underground Communications and Plans, at a stipulated salary.

Mines inspected and faithfully Reported on, orders for which purpose should be made for Mr. ColloM, or his Agent.

Proposals for New Mining Enterprises (which will bear the strictest scrutiny) Investment in Mines arranged for Capitalists,—the condition of the companies, as well as the prospects of the Mines, being first strictly investigated.

MR. CHARLES F. COLLOM OFFERS FOR SALE ONE THOUSAND SHARES OF EDINBURGH SHARES, at only 2s. 6d. each. The immediate purchase of these shares he recommends as a *bona fide* speculation. The mine is a mile in length on the course of the lochs, which are a continuation of the productive lochs of Okel Tor, the directors of which mine from the prospect anticipate shares will be in demand at from £2 to £3 each. An OFFER WANTED FOR ONE HUNDRED OKEL TOR.

LABORATORY OF ANALYTICAL CHEMISTRY.—4, THE CEDARS, PUTNEY, LONDON, S.W.

ESTABLISHED 1859.

ANALYSES and REPORTS on METALLIC ORES, METALS, &c., daily attended to by Dr. T. L. PRINCE, F.R.S., Member of the Chemical Society &c.

TITANIC STEEL AND IRON COMPANY (LIMITED).

STEEL AND IRONWORKS FOR SALE, BY PRIVATE TREATY.

THE LIQUIDATOR of the ABOVE-NAMED COMPANY is prepared to TREAT for the SALE, by private arrangement, as a going concern, of the WHOLE of the company's VALUABLE FREEHOLD MANUFACTURING PREMISES, known as

THE FOREST STEEL WORKS.

Situate at COLEFORD, in the FOREST OF DEAN, GLOUCESTERSHIRE extending over an area of about SEVEN ACRES, together with all the WORK SHEDS, ROLLING MILLS, FORGE, STOREHOUSES, OFFICES, PLANT and MACHINERY; also some valuable PATENTS, LICENSES, and LEASES, including LEASE of DUKHILL and SHUPCASTLE COLLIERIES.

The liquidator is also prepared to treat separately for the sale of the ROLLING MILL, with ENGINES, BOILERS, LATHES, SHEARS, &c., thereto, which are all nearly new, and in first-class working order. There are THREE TRAINS of ROLLS—viz., 10 in., 12 in., and 10 in. wire train—all driven by a 32 in. cylinder horizontal high-pressure non-condensing engine (75-horse power nominal), by Davy Brothers, of Sheffield. Fly wheel 20 ft. in diameter, weighing 20 tons.

Full particulars and orders to inspect the works can be obtained on application to ROBERT FLETCHER, 2, Moorgate-street, London, E.C., the Liquidator; or to B. WOODWARD, Forest Steel Works, Coleford.

The usual business of the company is meanwhile carried on at the works.

ARMAGH LEAD MINING COMPANY (LIMITED).

IN LIQUIDATION.

TO BE SOLD, BY PUBLIC AUCTION, by Mr. F. F. CAMPBELL (Auctioneer, Dundalk), on Thursday, the 21st September, 1871, at Twelve o'clock at noon, on the CREGGAN MINES, near CROSSMAGLEN, DUNDALK, IRELAND, all the MACHINERY and PLANT, consisting of—

ONE 36 inch cylinder COGNISH PUMPING ENGINE, 8½ feet stroke, with TWO BOILERS, about 8 tons each.
ONE 16 inch HORIZONTAL ROTARY CONDENSING ENGINE, 5 feet stroke, with TWO BOILERS, about 5 tons each.
ONE 14 inch cylinder ROTARY CONDENSING ENGINE, with ONE BOILER, about 6 tons, stroke 5 feet, with winding and pumping gear attached.
ONE CORNISH CRUSHING MILL, rollers 22 inches diameter, with cast-iron shaft wheel and fittings, complete—all in excellent condition.

About 45 fathoms 9 inch MAIN RODS, with strapping plates, bolts, &c., and about 80 fathoms 9 and 10 inch PUMPS, all with working barrels, H-pieces, and door-pieces to match,—all nearly new.

About 12½ fathoms 6 and 7 inch PUMPS, with working barrels and door-pieces complete; also ONE 8½ inch PLUNGER POLE, with pole case, stuffing box and gland.

150 fathoms 10 inch CAPSTAN ROPE, TIMBER, CHAINS, WIRE ROPE, and all the necessary MATERIALS to a going mine.

Capt. BAILEY, Crossmaglen, will show the materials on the ground, and any further particulars required will be given by—

T. CURRIE GREGORY, C.E., Liquidator.

62, St. Vincent-street, Glasgow, August 28, 1871.

CHILIAN COPPER MINES, AND MINING PROPERTY.

TO BE SOLD, pursuant to an Order of the High Court of Chancery, made in a Cause of "WATERS v. WATERS," with the approbation of the Master of the Rolls, at the Auction Mart, Tokenhouse-yard, Lothbury, in the City of London, at Two o'clock precisely, on Tuesday, the 9th day of January, 1872, by Mr. ROBERT C. DRIVER (of the firm of Messrs. Driver, Whitehall, London), the Auctioneer appointed by the said Judge to sell the same.

The WHOLE of the EXTENSIVE and RICH COPPER MINES, PARTS OF MINES, MINING PROPERTY and MATERIALS, and FREEHOLD PROPERTIES in CHILL, with the STORES and BUSINESSES carried on in connection with the said Mines, forming part of the Chilean Estate of Sampson Waters, late of Gyllyngdune, in the county of Cornwall, Esq., deceased. The Mines consist of—

- 1.—THE ENTIRETY of the SAN PEDRO MINE.
- 2.—ONE-THIRD of the celebrated DESCUBRIDORA MINE, with the adjoining SETS, SAN JUAN, SAN FRANCISCO, and SAN ANTONIO.
- 3.—THREE-FOURTH PARTS of the COLOHADO (SILVER) MINE.
- 4.—NINE FORTY-EIGHTH PARTS of the JUANA (SILVER) MINE.
- 5.—THE ENTIRETY of the SANTA ELENA COPPER MINE.
- 6.—THE ENTIRETY of the CUBA COPPER MINE.
- 7.—THE ENTIRETY of the SAN ANTONIO MINE.

San Pedro Mine, situate about 60 miles from the port of Chancay, has given immense riches, but owing to a run a new shaft had to be sunk 122 fathoms from the surface, and is now communicated with the lode at this depth. The lode is composed of black and yellow sulphurets, of a product of 10 per cent. for copper. The burrows are large, and will pay for working over, having water sufficient in the mine to do so. A good well of pure water is near to and belongs to the mine.

The Descubridora Mine has been working since 1859, and has yielded large profits from that date, and continues to do so. It is now down to the 94 fm. level, and has been rich from the surface. The ore is lengthening, the average width of the vein being from 30 to 80 feet, composed of yellow sulphurets. The burrows, by applying steam crushers, will yield large returns. Within the last few months two new steam engines have been erected at a cost of £600, and are now at work; these will increase the returns. The engines are one of 20-horse power for drawing, and one of 8 horse power for crusher. The mine is in thorough working order, and well stocked with materials, rails, jiggers, crushers, &c.

The adjoining sets of San Juan, Canchas, and San Francisco were acquired for the purpose of securing the ground in all directions round the Descubridora Mine, and they have since been worked on a limited scale. The Canchas is making a small profit. San Juan and San Francisco are being worked at a trifling loss. The other mines above mentioned are promising concerns.

Remuneration shops and stores are attached to the mines, and are carried on in conjunction with them.

The other property which will be offered for sale consists of an entirety of FREEHOLD DWELLING HOUSES, STORES, SHOPS, WATERING PLACE, TIMBER MATERIALS, ORE FLOORS, and other property (including a large condensing apparatus), situated at Chancay, Chancayito, Coplapo, and Tres Puntas; the Quinchigul establishment, or watering place, with the dwelling house, store yard, carts, and mules; two-thirds of the Vega establishment, with the yards, houses, shops, and stores; two-thirds of the dwelling-houses and yards, store rooms, ore floor, the mole, and premises in the Pan de Azúcar; seven-eighths of the watering place at Tres Puntas, and one moiety of the watering place at Punta Negra.

Plans of the San Pedro and Descubridora Mines, and printed particulars and conditions of sale may be obtained of Messrs. PRICE, BOLTON, and FIDLER, of Lincoln's Inn, London; of Mr. S. T. G. DOWLING, Solicitor, Redruth, Cornwall; of Mr. THOMAS WAITT, the Receiver and Manager at the Mines, Chill; of Messrs. FRESHFIELDS, Solicitors, Bank-buildings, London; of Mr. W. C. SMITH, 48, Lincoln's Inn-fields, London; of Mr. CHARLES NORTON, Solicitor, Swansea; of Messrs. ROSCOCK and SONS, Solicitors, Fenchurch; and of Messrs. GOSDE, KING, and COX, Solicitors, Bedford-row, London; and of Messrs. DRIVER, Surveyors, Land Agents, and Auctioneers, 4, Whitehall, London.

ROBERT MARSHALL, Chief Clerk.

PRICE, BOLTON, and FIDLER, Lincoln's Inn (Agents for S. T. G. Dowling, Redruth, Cornwall, Plaintiff's Solicitor). Dated 2nd August, 1871.

FOR SALE, THE CAMBRIA LEAD MINE.—The above Mine is situate within two miles of the Glandovey Station, on the Cambrian Railways, and there is an excellent road thereto.

There are two good lodes running one into another east to west, and the indications are most promising. There is also ample water power for all purposes of machinery and working of the mine in the driest weather.

For further particulars, apply to Mr. ADAM EVANS, Stationer, Machynlleth, Montgomeryshire.

TO SELL, OR LET ON HIRE, for cash or deferred payments, FIFTY COAL WAGONS, hopper built, with bottom and side doors, carrying seven tons.

Apply to MANSTON COAL COMPANY, Leeds.

LEAD MINES IN THE COUNTIES OF DURHAM AND NORTHUMBERLAND.

TO BE LET, ON LEASE, the HUNSTANWORTH and NEWBIGGIN ROYALTIES, the former about 3334 acres, and the latter 200 acres, or thereabouts.

The Hunstanworth Royalty adjoins the celebrated W. B. Lead Mines, and has for many years yielded large quantities of lead ore, and much of the ground is undeveloped.

Income leases can have the plant and machinery, now upon the premises, at an annual rent, with a right to purchase at any time during the lease, on terms to be agreed upon.

For particulars, apply to JOSEPH DODDS, Esq., M.P., No. 4, Spring-garage, Charing Cross, London, S.W., and Stockton-on-Tees; Mr. NATHANIEL CLARK, Beamish-park, Fence Houses; or Mr. THOMAS J. DEWICK, C.E., No. 2, Westminster-chambers, Victoria-street, London, S.W., and Haydon Bridge, Northumberland.

CHILTON MINES.

TO BE LET, the COAL MINES within and under the CHILTON ESTATE, the property of the Right Hon. the Earl of Eidon. The Estate is situated near FERRYHILL, in the County of DURHAM, and contains 1240 surface acres, or thereabouts. The North-Eastern main line, and West Hartlepool main line, and branch lines of railway intersect the estate.

For particulars, apply to JOHN JOHNSON, C.E., Chilton Hall, Ferry Hill.

SOUTH WALES SMOKELESS STEAM COAL.

TO BE LET, ON LEASE, a COLLIERY, now working on the above, with a WORKABLE AREA of over FIVE HUNDRED and NINETY ACRES. Railway through the property; eight miles from Port; coal on Government List.

For particulars, apply to Mr. LEYSON RHYDS, Mining Engineer, Abordare, South Wales.

CORNWALL.

VALUABLE SLATE AND SLAB QUARRY.

FOR SALE, a VALUABLE SLATE QUARRY, in CORNWALL, in the vicinity of the celebrated Delabole Quarry, well placed, with access to a Shipping Port.

The quarry, which has been opened, and a considerable sum expended upon it in bringing it into its present state of development, and the workings have exposed thick beds of the best Cornish slate and slab.

The quarry is held on lease for an unexpired term of about 27 years, at the exceeding low rent of £70 per annum.

For further particulars, apply to Messrs. TOMPKIN, PICKERING, STYAN, and NELSON, 4, Stone buildings, Lincoln's Inn, London, Solicitors.

FORGE, &c., MACHINERY FOR SALE.

ONE 26 in. by 5 ft. stroke extra strong HORIZONTAL ENGINE, fly wheel weighs 24 tons, only worked a few months.

ONE 18 in. by 3 ft. stroke independent high-pressure BEAM ENGINE, quite new.

Several sets 18 in. FORGE TRAINS, as worked.

ONE HUNDRED and FIFTY TONS SPARE ROLLS, all sections and sizes.

TWO SETS 8 in. TRAINS and CONNECTIONS.

TWENTY Cameron's DONKEY PUMPS, 3 in. rams.

TWO 12 ft. 14-in. PATENT TURNABLES.

SEVERAL SETS BAR SHEARS, with and without engines.

ARMOUR PLATE PLANING MACHINE, new.

TWELVE TON NEW STRAM HAMMER, double wrought iron standard.

TWO 150 ton STRAM SWING CRANES, not quite finished.

TWO NEW EGG-ENDED BOILERS, 35 ft. by 6 ft., and fittings.

Several BEAM ENGINES, BOILERS, &c.

ONE 8-horse Thompson's patent ROAD STEAMER, with india-rubber tyres.

ONE ditto, 10-horse power, both very little used and equal to new,—cheap.

FOUR 6 ton WAGONS, suitable for ditto.

TWO 14 horse patent self-propelling PORTABLE ENGINES, with drums, &c., self contained, suitable for winding, hoisting, ploughing, &c.

TWO 12 horse ditto, with seven tined cultivator, 800 yards steel rope, porters.

TWO 6 horse PORTABLE ENGINES, in first-rate condition,—to be sold, cheap.

Apply to—**WHEATLEY KIRK AND PRICE, 35, Princess-street, Manchester.**

ON SALE, a 50 in. cylinder PUMPING ENGINE, in good working order; also, all the PITWORK, comprising three lifts, a 12 in. and a 14 in. column.

Apply to the BROUGHTON COAL COMPANY, near Wrexham.

FOR SALE, BY PRIVATE CONTRACT:—

ONE 30-inch cylinder ROTARY ENGINE, suitable for stamping and pumping.

ONE 36 inch cylinder PUMPING ENGINE.

ONE 10 ton and ONE 8 ton BOILER. All in good condition.

Apply to Messrs. JOHN HOCKING and SON, Engineers, Trowbridge-terrace, Redruth.

SURPLUS MACHINERY ON SALE.

FOUR WHEEL TANK LOCOMOTIVE, worked 15 months; price £330; splendid STEEL BOILER, by Adamson, 16 ft. by 4 ft. 6 in., price £60; several HORIZONTAL ENGINES, nearly new, and a large quantity of similar and other machinery. ENGINEERS' TOOLS, &c., &c., good as new, and cheap.

C. REEVES, BANK STREET EXCHANGE, MANCHESTER.

FOR SALE, a high-class 25-horse power PORTABLE STEAM ENGINE; also, a 16-horse power, with or without reversing gear.

FOR SALE, cheap, several first-class second-hand PORTABLE STEAM ENGINES, 3 to 14 horse power, in excellent order.

PIT WINDING GEAR made at a short notice suitable for portable engines.

FOR SALE, a first class MORTAR MILL.

Apply to—**BARROWS AND STEWART, ENGINEERS, BANBURY.**

FOR SALE, BY PRIVATE CONTRACT, at PAR CONSOLS, Par Station, CORNWALL, and close to Par Shipping Harbour,

ONE 80, and ONE 72 in. cylinder PUMPING ENGINE, and BOILER.

24, 18, and 15 in. WINDING ENGINES and BOILERS.

8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20 in. PUMPS.

H and top-door pieces; plunger poles; rod plates; and a large quantity of other useful MINING MATERIALS.

Apply to Capt. PUCKEY, St. Blazey, Cornwall.

SECONDHAND MINING MACHINERY FOR SALE IN FIRST-RATE CONDITION.

PUMPING ENGINES, of various sizes,—viz., 80 in., 70 in., 60 in., 50 in., 40 in., 30 in.

WINDING ENGINES, STAMPING ENGINES, STEAM CAPSTANS, and CRUSHERS of various sizes.

A NUMBER OF BOILERS.

STEEL! STEEL! STEEL!

TO MINE PROPRIETORS, CONTRACTORS, ENGINEERS,
AND OTHERS.

JOHN TURNER'S
CELEBRATED DOUBLE-REFINED CAST-STEEL
FOR JUMPERS AND DRILLS USED FOR HARD ROCK AND MINES.
Best quality at the lowest manufacturer's price. Delivered free.

J. TURNER, SHEFFIELD.
GENERAL DEPOT, AND STOCK OF ALL SIZES AT
FERRY ROAD, MIDDLESBOROUGH-ON-TEES.

References given to Cumberland, Cornwall, Scotland, and Cleveland Mines.

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ROYAL PATENT.
MALAM AND COMPANY,

ENGINEERS,
INVENTORS AND PATENTEES OF PORTABLE AND STA-
TIONARY GAS APPARATUS,
NEW ROAD, ROTHERHITHE,
LONDON.

CONTRACTORS for GAS, WATER, SUGAR WORKS, and DISTILLERIES
on the most improved principles.
Plans and specifications furnished on application.

Also, INVENTORS of APPARATUS for GENERATING GAS from DEAD
and other OILS, applicable to every description of FURNACES, FLUES, &c.

LOCOMOTIVE TANK ENGINES

FOR MAIN LINE TRAFFIC, SHORT LINES, COLLIERIES,
CONTRACTORS, IRONWORKS, MANUFACTORIES, &c., from a
superior specification, equal to their first-class Railway Engines, and specially
adapted to sharp curves and heavy gradients, may always be had at a short
notice from—

MESSRS. BLACK, HAWTHORN, AND CO.,
LOCOMOTIVE, MARINE, AND STATIONARY ENGINE WORKS,
GATESHEAD-ON-TYNE.

London Office: 118, CANNON STREET, E.C.

MECHANICAL VENTILATORS FOR MINES.

MESSRS. BLACK, HAWTHORN, AND CO.,
LOCOMOTIVE, MARINE, AND STATIONARY ENGINE WORKS,
GATESHEAD-ON-TYNE.

HAVE now a speciality for the construction of the "GIBAL"
FAN, with their Engines designed expressly for them. Tenants sent
on application. London Office: 118, CANNON STREET, E.C.

BENNETTS' SAFETY FUSE WORKS,
ROSKEAR, CAMBORNE, CORNWALL.

BLASTING FUSE FOR MINING AND ENGINEERING
PURPOSES,
Suitable for wet or dry ground, and effective in Tropical or Polar Climates.

W. BENNETTS, having had many years' experience as chief engineer with
Messrs. Bickford, Smith, and Co., is now enabled to offer Fuse of every variety
of his own manufacture of best quality, and at moderate prices.
Price Lists and Sample Cards may be had on application at the above address

IMPROVED APPLICATION OF WATER POWER.
THE TURBINE.

Mac Adam, Brothers, & Co.
ENGINEERS,
SOHO FOUNDRY, BELFAST.

After twenty years of experience, have brought their
Improved TURBINE to great perfection.

It is applicable to all practicable heights of fall, giving much
greater power from the water than any other kind of water-
wheel.

On low falls it has the great advantage of not being impeded
by floods or back-water.

It is particularly well adapted for situations where the
quantity of water is variable, and where all other wheels fail.

Its motion is extremely regular, and, when desired, a
Governor can be applied effectively.

This Wheel is at work in a great many places, to which
reference will be given.

JOHN AND EDWIN WRIGHT,
PATENTEES.
(ESTABLISHED 1770.)
MANUFACTURERS OF EVERY DESCRIPTION OF

PATENT FLAT AND ROUND WIRE ROPES
From the very best quality of charcoal iron and steel wire.

PATENT FLAT AND ROUND HEMP ROPES.

**SHIP RIGGING SIGNAL AND FENCING STRAND, LIGHTNING CON-
DUCTORS STEAM PLOUGH ROPES** (made from water and Horsfall's
patent steel wire), HEMP, FLAX, ENGINE LARN, COTTON WASTE,
TARPAULING, OIL SHEETS, & MATTICE CLOTHS, &c.

UNIVERSE WORKS, MILLWALL, POPLAR, LONDON.
UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.
CITY OFFICE, 55, LEADENHALL STREET, LONDON, E.C.

HEAT-ENDURING PAINT.

THE TITANIC PAINT will ENDURE a DEGREE of HEAT
that will ENTIRELY DESTROY all other known Paints.

Bars of IRON have been coated with all the various known Paints, and
placed in the flues of forges while in operation, and in other equally trying
situations. IN EVERY CASE THE TITANIC PAINT HAS BEEN UNIN-
JURED, while ALL THE OTHER PAINTS WERE TOTALLY DESTROYED.

The TITANIC PAINT also affords a PERFECT PROTECTION TO IRON
FROM OXIDATION in any situation, and PRESERVES WOOD AND OTHER
MATERIAL FROM DECAY.

Contracts undertaken to paint roofs of railway stations and other important
works, guaranteeing results for a term.

Information, as to prices, terms, &c., with particulars of trials, and opinions
of its value from consumers, can be obtained on application to—

THE TITANIC PAINT AND COLOUR COMPANY,
13, ST. MARY'S ROW, BIRMINGHAM.

THE NEW PETRIFYING SILICATE PAINTS,
MANUFACTURED BY THE

SILICATE PAINT COMPANY,

Contain Silica in a peculiar form, extracted from a mineral of volcanic
origin, only as yet discovered in a single deposit, rendering the surface of iron
and wood indestructible and unchangeable, causing the paint to petrify; it has
no chemical action like lead paints when applied to metal; it sets quickly, and
dries as hard as marble; its covering properties are so much greater than ordi-
nary paint that it is the most economical of all paints.

TO SHIPPERS.—It will stand intense frost or tropical heats, and resist the
action of salt water.

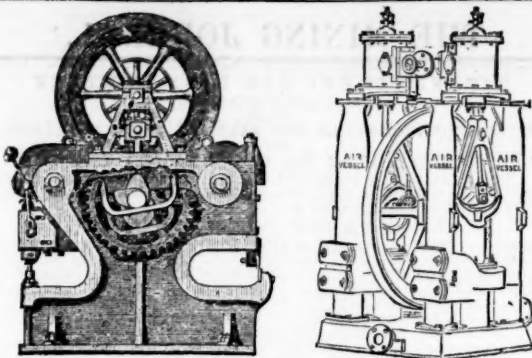
It is particularly adapted for flattening purposes, and all kinds of out and in
door iron and wood work, railway bridges and carriages, iron houses, ship
bottoms, mining plant, and all descriptions of wood and iron work.

SUPPLIED IN ALL COLOURS.

THE PETRIFYING LIQUID, OR SOLUTION OF SILICA,
FOR RENDERING

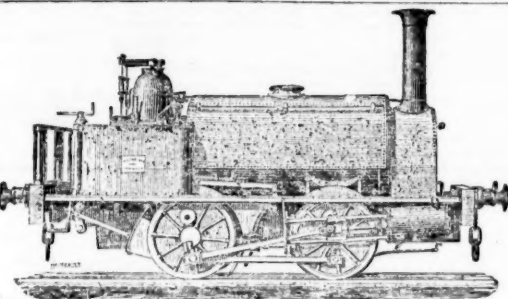
BUILDINGS OF STONE AND BRICK, PLASTER, AND CEMENT WORK
IMPERVIOUS TO DAMP.

SILICATE PAINT COMPANY,
24, FENWICK STREET, LIVERPOOL.



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MAKER OF

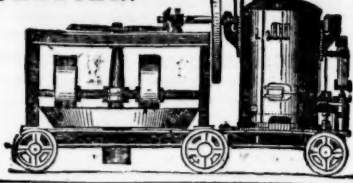
TEAM PUMPS, PORTABLE ENGINES, PLATE BENDING ROLLERS
BAR AND ANGLE IRON SHEARS, PUNCHING AND SHEARING
MACHINES, PATENTEE OF THE DOUBLE CAM LEVER
PUNCHING MACHINE, BAR SHEARS, AND RAIL
PUNCHING MACHINES,
EGERTON STREET IRON WORKS,
HULME, MANCHESTER.



TANK LOCOMOTIVES,
FOR SALE OR HIRE.

HENRY HUGHES AND CO,
LOUGHBOROUGH.

URIAH NICHOLS
Late Nathan Gough, A.I.C.E.,
ENGINEER,
And Manufacturer of
Portable Engines, Pumps, Cranes, Mortar
Mills, &c., &c.,
BACK QUAY STREET WORKS,
MANCHESTER.



THOMAS TURTON AND SONS,
MANUFACTURERS OF
CAST STEEL FOR PUNCHES, TAPS, and Dies,
TURNING TOOLS, CHISELS, &c.
CAST STEEL PISTON RODS, CRANK PINS, CON-
NECTING RODS, STRAIGHT and CRANK
AXLES, SHAFTS and
FORGINGS OF EVERY DESCRIPTION
DOUBLE SHEAR STEEL, FILES MARKED
BLISTER STEEL, T. TURTON
SPRING STEEL, EDGE TOOLS MARKED
GERMAN STEEL, WM. GREAVES & SON
Locomotive Engine, Railway Carriage and Wagon
Springs and Buffers.

SHEAF WORKS AND SPRING WORKS, SHEFFIELD.
LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C.
Where the largest stock of steel, files, tools, &c., may be selected from.

ACCIDENTS CAUSE LOSS OF LIFE.
ACCIDENTS CAUSE LOSS OF TIME.
ACCIDENTS CAUSE LOSS OF MONEY.

PROVIDE AGAINST ACCIDENTS OF ALL KINDS
BY INSURING WITH THE
RAILWAY PASSENGERS' ASSURANCE COMPANY
An annual payment of £3 to £6 5s. insures £1000 at death, or an allowance
the rate of £6 per week for injury.
£505,000 have been paid as compensation—
One out of every 12 Annual Policy Holders becoming a claimant each year.
For particulars, apply to the Clerks at the Railway Stations, to the
Local Agents, or at the Offices—
64, CORNHILL, and 10, REGENT STREET, LONDON.
WILLIAM J. VIAN, Secretary.

THE HOWARD SAFETY BOILER,

For STATIONARY and MARINE ENGINES, has the following advantages:—

SAFETY; NO RISK from DANGEROUS EXPLOSION; **HIGH-PRESSURE STEAM**, with **ECONOMY OF FUEL**; perfect
circulation, and ready means of removing sediment.

Saving of cost and time in repairs; portability, and, for export, great saving in freight.

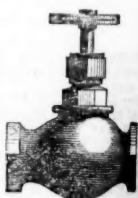
Patentees and Manufacturers: **J. and F. HOWARD**, Britannia Iron Works, Bedford.
LONDON OFFICE: 4, CHEAPSIDE (three doors from St. Paul's).



IMPROVED VALVES AND TAPS,
FOR WATER, STEAM, GAS, ETC.,

Made by **MATHER AND PLATT,**
SALFORD IRONWORKS, MANCHESTER.

ILLUSTRATED SHEET, WITH PRICES, CAN BE HAD ON APPLICATION.



TITANIC STEEL AND IRON COMPANY LIMITED
SOLE MANUFACTURERS OF

MUSHET'S TITANIC BORER STEEL,

Mushet's Titanic Cast Steel for Engineer's Tools, &c.

FOREST STEEL WORKS, COLEFORD,
GLOUCESTERSHIRE.

The First Prizes of the Royal Agricultural Society of England.

PORTABLE STEAM ENGINES,
WITH ALL RECENT IMPROVEMENTS.

HORIZONTAL FIXED STEAM ENGINES,

PORTABLE THRASHING MACHINERY,

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It has been in use now for nearly three years by the WIGAN COAL AND IRON COMPANY, whose Manager, Mr. ALFRED
HEWLETT, says—"I have used the Don Oil for nearly two years, and FIND IT TO ANSWER exceedingly well for the purposes of
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We have also most flattering written opinions, which could be produced, from Mr. THOMAS EMMERSON FORSTER, M.E., of
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of others. In face of such indisputable testimony, it is simply a WASTE OF MONEY to use the common kinds, which are nearly
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PRIZE MEDALS—PARIS, 1867; HAVRE, 1868; HIGHLAND SOCIETY, 1870.

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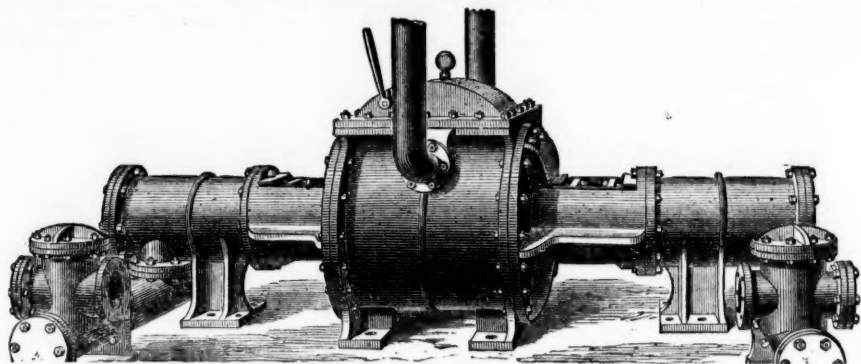


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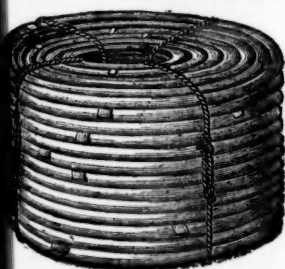
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Does not char, is pliable, keeps the rods COOL, BRIGHT, AND CLEAN,
And lasts longer than any other, thereby SAVING FULLY 200 PER CENT.

To the User, in oil, labour, and material.
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CHAS. PRICE AND CO.'S RANGOON ENGINE OIL, AS SUPPLIED TO H.M. DOCKYARDS AND FLEET.



THIS OIL is suitable to every kind of Machinery. As a lubricant it is equal to the best Spermin or Lard Oil, while it possesses the great advantage of being entirely free from any principle which will corrode the metal bearings.

For particular kinds of Machinery, the Oil may be specially prepared of a consistency and character adapted to the nature of the work to be done.

"I herewith certify that the Rangoon Engine Oil, manufactured by Messrs. Chas. Price and Co., is free from any material which can produce corrosion of the metal work of machinery. It is indeed calculated to protect metallic surfaces from oxidation.

"The lubricating power of this oil is equal to Spermin or Lard Oil.

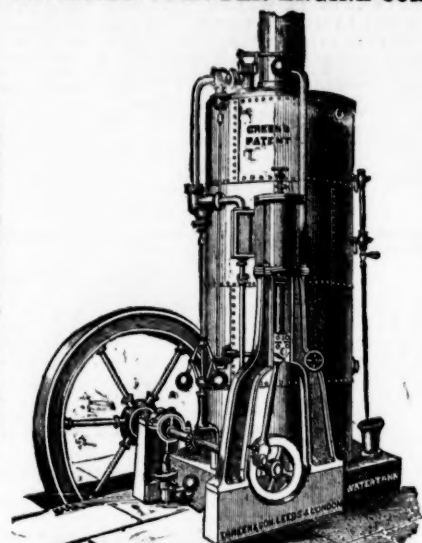
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Every parcel of the Oil sent from the work bears the Trade Mark of the Firm.

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For Exportation they are invaluable, being sent out in complete working order, ready for immediate use.

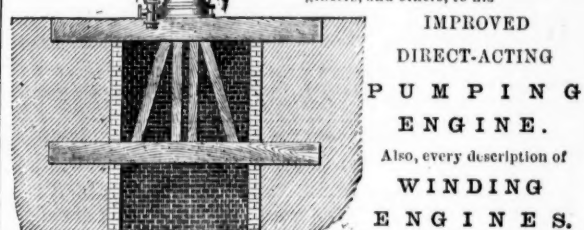


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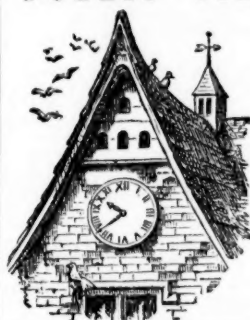
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ENGINE.
Also, every description of
WINDING
ENGINES.

IMPORTANT TO CHURCHWARDENS, AND OTHERS,
WITH A VIEW TO POPULARISE

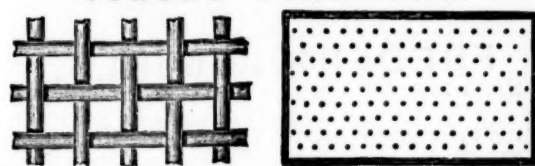
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All warranted two years.
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STRONG WIREWORK, the cross wires equally bent; also BEST STAMP GRATES, both of iron and copper, and punched copper plates, HITTO TUBBED. All the above promptly supplied at
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By a special method of preparation, this leather is made solid, perfectly close in texture, and impermeable to water; it has, therefore, all the qualifications essential for pump buckets, and is the most durable material of which they can be made. It may be had of all dealers in leather, and of

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100	John Abbot and Co. [L.]	75 0 0	22½ 20 dis.
100	Ashbury Co. [L.]	75 0 0	40 37½ dis.
50	Blacknave Iron and Steel Co. [L.]	7 10 0	—
100	Bolekov, Vaughan, and Co. [L.]	30 0 0	29 11 pm.
100	Brown, John, and Co. [L.]	70 0 0	74 8 pm.
100	Consett Iron Co. [L.]	7 10 0	7 6 6 pm.
100	Carnall and Co. [L.]	70 0 0	11 2½ dis.
82	Ebbw Vale Co. [L.]	27 10 0	11 2½ dis.
50	Fairbairn Engineering	5 0 0	1½ 2 pm.
20	General Mining Association [L.]	20 0 0	8 10 pm.
15	Hopkins, Gilkes, and Co. [L.]	10 0 0	½ dis. to par.
10	Ironmasters' Company [L.]	10 0 0	—
10	Midland Iron Co. [L.]	5 0 0	6 7 xd. pm.
2½	Mersey Steel and Iron Co. [L.]	11 10 0	7½ 7½ dis.
4	Myndy Iron Co. [L.]	3 10 0	2½ 2 dis.
100	Nantyglo and Ebbw (priv. & p. pref.)	25 0 0	½ dis. ½ pm.
1	Nerbudda Coal and Iron	0 7 0	par.
35	Park's Shipbuilding and Iron Co. [L.]	25 0 0	1 2 pm.
55	Patent Shaft and Axletree Co. [L.]	65 0 0	1 2 pm.
20	Patent Shaft and Axletree Co. [L.]	10 0 0	6½ pm. xd.
50	Rhymney Iron Co. [L.]	50 0 0	17 16 dis.
15	Shotts Iron Co. [L.]	15 0 0	5½ 4½ dis.
50	Sheepbridge Iron and Coal Co. [L.]	45 0 0	5 4 dis.
100	Staveley Iron and Coal Co. [L.]	60 0 0	8 9 pm.
100	Thames Iron Company	10 0 0	9 11 pm.
7½	Titanium Iron and Steel	5 0 0	—
100	Vancouver Coal [L.]	6 0 0	par. 1 pm.
10	Van Iron Ore [L.]	10 0 0	—
10	Whitbait Iron Mines [L.]	4 0 0	—
100	Wigan Coal and Iron Co.	100 0 0	12 10 dis.
75	Ditto ditto	75 0 0	12 10 dis.

THE MINING SHARE LIST

BRITISH		DIVIDEND		MINES.			
Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
15000	Alderley Edge, c. Cheshire*	10 0 0	—	—	10 11 8	0 5 0	July 1871
20000	Blaen Caellan, s. Cardig.*	1 0 0	—	1½ 1½	0 1 0	0 1 0	May 1871
6000	Boscawell, t. c. St. Just	1 0 0	—	—	31 12 0	0 0 0	Aug. 1870
200	B-tallick, t. c. St. Just	91 5 0	260	240 250	601 5 0	6 0 0	Aug. 1871
5000	B-tallick, s. t. Cardigan†	100 0 0	110	105 110	106 0 0	2 0 0	July 1871
4000	Brookwood, c. Buckfastleigh	1 16 0	—	—	1 0 0	0 2 6	July 1871
5000	Bruch Consols, s. t. Cardigan*	4 0 0	—	—	0 9 0	0 2 6	May 1870
4000	Cashwell, t. Cumberland*	2 10 0	—	—	0 18 0	0 3 6	Sep. 1871
500	Castle an Dinas, t. St. Columb.	2 0 0	—	—	0 2 0	0 2 0	July 1871
858	Carroll, s. t. Newlyn	16 5 7	—	—	16 15 0	0 10 0	Aug. 1869
1000	Caru Brea, c. t. Illogan	35 0 0	155	140 145	252 10 0	2 0 0	Aug. 1871
2450	Cook's Kitchen, c. t. Illogan	19 14 9	28	27 28	67 10 0	0 15 0	July 1871
867	Cwm Erwin, t. Cardiganshire*	7 10 0	—	—	31 12 0	0 0 0	Jan. 1871
128	Cwmystwith, t. Cardiganshire	60 0 0	—	—	391 10 0	2 0 0	July 1869
280	Derwent Mines, s. t. Durham	300 0 0	—	—	177 0 0	2 10 0	July 1868
1024	Devon Gt. Consols, c. Tavistock†	1 0 0	105	95 100	1153 0 0	4 0 0	May 1871
656	Ding Dong, t. Gwilt	49 14 6	—	—	7 10 0	0 15 0	Aug. 1870
1432	Dolcoath, c. t. Camborne	32 4 6	182	183 185	260 12 6	3 10 0	Aug. 1870
12800	Drake Walls, t. Calstock†	2 10 0	—	¾ ¾	1 3 3	0 1 0	July 1870
6144	East Caradon, c. St. Cleer†	2 14 6	—	5½ 5½	14 14 0	0 2 6	July 1871
300	East Darren, t. Cardiganshire	32 0 0	—	—	197 10 0	2 0 0	Apr. 1871
6400	East Pool, t. c. Pool, Illogan	0 9 9	—	13½ 13½	11 16 3	0 0 0	July 1871
1906	East Wheal Lovell, t. Wendron	3 9 0	14	12 13	19 8 6	15 0 0	Aug. 1871
2800	Fordale, t. Isle of Man*	25 0 0	—	—	78 10 0	0 10 0	June 1871
5000	Frank Mills, t. Christow	3 18 6	—	—	4 8 0	0 2 6	Aug. 1870
3500	Gawton, c. Tavistock	3 10 6	—	—	0 3 0	0 3 0	Jan. 1868
15000	Great Laxey, t. Isle of Man*	4 0 0	17	16 17	14 3 0	0 6 0	June 1871
3000	Great Northern Manganese*	5 0 0	—	—	—	5 p.c.	Feb. 1869
5908	Great Wheal Vor, t. c. Helston†	40 0 0	9½	9½ 10	15 12 0	0 3 6	June 1870
10240	Guerrilla (Clitters), t. c. Helston†	4 19 0	—	—	0 2 0	0 1 0	Nov. 1870
1024	Herdasfoot, t. c. near Liskeard†	8 10 0	42½	43 45	57 0 0	1 10 0	June 1871
25000	Killalee, s. Tipperary	1 0 0	1	1 1½	0 11½	0 9½	Dec. 1870
166	Levant, t. c. St. Just	10 8 1	—	—	101 0 0	2 0 0	Aug. 1866
400	Lisburn, t. Cardiganshire	18 15 0	—	—	343 1 0	2 0 0	Mar. 1871
9000	Marke Valley, t. Caradon	4 10 6	5½	5½ 5½	7 2 0	0 4 0	July 1871
1800	Minora Mining Co., t. Wrexham	25 0 0	—	—	293 18 3	15 0 0	Aug. 1871
20000	Mining Co. of Ireland, c. t. c. l.	7 0 0	6½	6 6½	0 4 6½	0 2 1	July 1870
6400	New Pembroke, t. c. Par Station	5 0 0	—	—	0 7 6	0 2 6	Mar. 1871
2000	North Levant, t. c. St. Just	10 12 0	15	14 15	3 5 0	0 15 0	Aug. 1871
6010	North Wheal Crofty, c. Illogan†	3 11 8	2½	1¾ 2	0 5 6	0 1 6	June 1871
256	Pendennis United, t. c. Camb.	3 0 0	6	5 6	21 0 0	3 0 0	July 1871
5000	Penhalls, t. St. Agnes	50 0 0	—	—	19 6 0	3 0 0	Aug. 1871
500	Phoenix, t. c. Linkinhorne	20 0 0	—	—	470 0 0	7 0 0	June 1871
1772	Pobber, t. St. c. Illogan	15 0 0	—	—	0 17 6	10 0 0	May 1871
2000	Polloc, t. c. Gwennap	10 0 0	—	—	1 19 0	0 10 0	Oct. 1871
12800	Prince of Wales, c. Calstock	0 12 6	¾	¾ ¾	0 10 6	0 1 0	Nov. 1869
1120	Providence, t. Uny Lelant†	10 6 7	27	25 27	102 2 6	0 10 0	June 1871
15000	Queen, s. c. Calstock*	0 10 0	—	—	0 2 0	0 1 0	Dec. 1870
5869	Rosewell Hill & Ransom, t. c. l.	4 0 0	1	1 1½	0 14 6	0 1 6	June 1871
512	South Caradon, c. St. Cleer†	1 5 0	220	190 210	668 10 0	3 0 0	July 1871
6128	South Condurow, t. c. Camborne	5 6 6	—	9½ 10	0 7 6	0 2 6	June 1871
6000	South Darr, t. c. Cardigan*	24 10 10	21	21 22	0 1 6	0 1 6	Nov. 1870
937	South Wh. Crofty, c. Illogan	18 18 9	52½	49 51	374 13 6	0 10 0	June 1871
496	St. W. Francis, c. Illogan	26 17 9	—	—	16 15 0	1 0 0	Mar. 1866
242	Spearhead, t. St. Just	10 15 0	7½	6 7	0 10 0	0 10 0	May 1869
300	St. Ives Consols, t. St. Ives	3 10 0	—	—	0 5 0	0 2 6	Nov. 1870
8771	St. Just Amalgamated, t. c. l.	6 0 0	17½	16½ 17½	1 6 0	0 0 0	Aug. 1871
12000	Tankerville, t. Salop*	9 0 0	50	46 47	32 13 6	1 15 0	Sept. 1871
6000	Tinocroft, c. t. Pool, Illogan†	5 15 0	17	16 17	7 1 0	0 10 0	June 1871
4000	Truncheon Cons., t. Helston	4 5 0	27	25 27	4 14 0	0 12 0	June 1871
3000	W. Chiverton, t. Perranzabuloe	10 0 0	60	55 67½	50 7 6	1 0 0	June 1871
512	West Wheal Frances, t. Illogan	106 10 0	140	130 135	679 0 0	2 10 0	Apr. 1871
400	Wheal Arthur, t. Calstock	1 0 0	1½	—	0 2 0	0 1 0	Aug. 1871
12258	Wheal Basset, c. Illogan	5 2 6	65	62½ 67½	632 10 0	1 0 0	June 1868
512	Wheal Jane, s. t. Kea	10 15 0	42	40 42	38 10 0	1 10 0	Nov. 1870
4295	Wheal Killy, t. St. Agnes	5 4 8	9½	9½ 10	6 18 0	0 10 0	Aug. 1871
1024	Wheal Killy, t. Uny Lelant†	3 10 6	8½	9½ 10	13 12 6	0 0 0	Apr. 1871
896	Wheal Margaret, t. Uny Lelant	13 17 6	17	16 17	80 7 6	0 12 6	Aug. 1871
1024	Wheal Mary Ann, t. Menheniot†	9 0 0	9	7 8	72 17 6	0 10 0	June 1871
1000	Wh. Mary Hutchins, Plympt.	2 12 6	—	—	0 9 7 6	7 6	Sep. 1871
60	W. of Cal. Consol., t. St. Just	70 0 0	—	—	493 0 0	8 0 0	Aug. 1871
1200	Wheal Russell, c. Tavistock	0 0 0	—	—	0 2 0	0 1 0	Aug. 1871
396	W. of St. Eton, t. c. Camborne	61 0 0	32½	27½ 33½	254 15 0	2 0 0	Feb. 1868
4096	Wheal Uny, t. c. Redruth	10 14 6	8½	7½ 8	0 11 0	0 6 0	July 1871
7100	Wicklow, c. t. Wicklow	3 10 0	6½	6½ 7	50 2 6	0 2 6	Sept. 1871